



1 of 1 DOCUMENT

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FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972 (FWPC72)

[Go Back](#)

92D CONGRESS - COMMITTEE REPORTS: Senate Public Works Committee Report 92-414, Reporting S. 2770,
Oct. 28, 1971

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92D CONGRESS 1st Session
SENATE
REPORT NO. 92-414

FEDERAL WATER POLLUTION CONTROL ACT
AMENDMENTS OF 1972

NOTE

[*v]

The titles and sections of the Committee bill are closely related and, taken together, provide a structure for the management of what is not called "waterborne waste". The key elements of that structure, developed by the Committee through intensive reexamination of the problems presented, appear near the beginning of each title -- particularly in Sections 101 <FWPCA § 101>, 201 <FWPCA § 201>, 209 <FWPCA § 209>, 301 <FWPCA § 301>, and 402 <FWPCA § 402>.

The bill is longer than most reported by the Committee--188 pages. It is suggested that not only those who are seeking the Committee bill for the first time, but all who wish to understand the framework it proposes for the management of waste and achievement of water quality, may find it convenient and helpful to first review the following sections: Section <FWPCA § 101> 101 (Declaration of Policy); Section 201 <FWPCA § 201> (Title II, Purpose); Section 209 <FWPCA § 209> (Regional Management); Sections 301 <FWPCA § 301> and 302 <FWPCA § 302> (Effluent Limitations); and Section 402 <FWPCA § 402> (Permit System). Those sections are the heart of the bill, on two dozen pages.

This suggestion for preliminary review of the framework of the bill does not imply that other sections are not important, and many will have profound impact and be of particular interest to those affected. Among these are: Sections 202-208 <FWPCA § 202> <FWPCA § 203> <FWPCA § 204> <FWPCA § 205> <FWPCA § 206> <FWPCA § 207> (Federal Share, Grant Conditions, Grant Allocations, Reimbursement, and Grant Authorization); Section 306 <FWPCA § 306> (Standards of Performance for new sources); Section 307 <FWPCA § 307> (Toxic and Pretreatment

Effluent Standards; Section 309 <FWPCA § 309> (Federal enforcement); Section 505 <FWPCA § 505> (Citizen Suits); Section 516 <FWPCA § 517> (General Authorizations); and among the definitions, those for the terms "pollutant", "pollution", "toxic pollutant", "discharge", "treatment works", and "replacement" appearing in Sections 502 <FWPCA § 502> and 210 <FWPCA § 210>.

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[*1]

FEDERAL WATER POLLUTION CONTROL ACT
AMENDMENTS OF 1971

OCTOBER 28, 1971.--Ordered to be printed

Mr. RANDOLPH, from the Committee on Public Works, submitted
the following
REPORT
together with
SUPPLEMENTAL VIEWS
[To accompany S. 2770]

The Committee on Public Works, to which was referred the bill (S. 2770) Federal Water Pollution Control Act Amendments of 1971, having considered the same, reports favorably thereon without amendments and recommends that the bill do pass. An original bill (S. 2770) is reported in lieu of S. 523, S. 1012, S. 1013, S. 1014, S. 1017 and S. 1238 which were considered by the committee.

GENERAL STATEMENT

HISTORY

For more than two decades, Federal legislation in the field of water pollution control has been keyed primarily to an important principle of public policy: The States shall lead the national effort to prevent, control and abate water pollution. As a corollary, the Federal role has been limited to support of, and assistance to, the States.

[*2] The 1948 legislation, for example, assigned powers for enforcement in water pollution control to Governors of the States. The Federal agencies were authorized only to support research in water pollution, projects in new technology, and limited loans to assist the financing of treatment plants.

Given these basic provisions, State and Federal efforts in water pollution control went forward with little legislative change for nearly 10 years. It was a period of transition. To most Americans, the problems of water pollution control appeared to be localized and moderate.

In 1956, the Congress approved the first major legislative changes in the water pollution control program. Federal grants were authorized to assist States in preparing plans for pollution control and to help localities in building treatment plants. The authority for research and technical assistance was increased and broadened. Measures for controlling pollution of interstate waters were tightened.

The 1956 legislation called for increased cooperation between the Federal government and the States to develop a broader national effort against water pollution. The Federal funding authorized, however, fell short of needs. Pressures of population and economic growth upon the natural resources, as evidenced by reports of previously unobserved forms and kinds of water pollution, continued to increase.

In 1965, the Congress approved a second set of major legislative decisions for the water pollution control program.

For the purpose of this report, perhaps the most important among these decisions were the assignment of a new responsibility to the States, the continued use of a 1948 enforcement procedure, and the establishment of a new agency to administer the Federal portion of the program.

Each State was required by the 1965 Act to develop standards for water quality within its boundaries. These standards were to be applied to all interstate navigable waters flowing through the State; intrastate waters were not included. The State standards were to be submitted to the new Federal agency by July 1, 1967, for approval.

The 1948 enforcement procedure provided for conferences and negotiations between dischargers of pollutants and officials of the governments involved. The procedure also permitted judicial review of the abatement conference recommendations. Further, a court could order abatement only after a finding that compliance with the order was feasible.

The new agency established to administer the Federal portion of the program was originally known as the Federal Water Pollution Control Administration and was located in the Department of Health, Education, and Welfare. During the past five years, its authority has been transferred twice to other officials in the Executive branch: In May, 1966, to the Secretary of the Interior, and in December, 1970, to the Administrator of the Environmental Protection Agency.

The Congress moved again in 1966 to broaden and intensify the Federal support of State efforts in water pollution control. A five-year authorization totaling \$3.4 billion for grants to assist the construction of waste treatment plants was provided. The authorization scheduled \$150 million for fiscal year 1967 and increased steeply during the 5 years to \$1.25 billion for fiscal year 1971.

Last year, the Congress confronted several specific problems in water pollution control. The 1970 amendments added to the basic law [*3] new sections on liability for cleaning up of oil discharges, discharge of hazardous substances, discharge of sewage from vessels, demonstration projects for cleaning up pollution in the Great Lakes, acid mine drainage, regulation of Federal activities affecting water quality, and manpower training for water pollution control.

1970 HEARINGS

During April, May, and June of 1970, the Subcommittee on Air and Water Pollution devoted 14 days of public hearings to 18 Senate bills concerning water pollution abatement and control. Among the bills were four introduced for the Administration to amend the law concerning construction grants, standard setting, and enforcement. (The Committee is separately reporting the fourth Administration bill, establishing an Environmental Financing Authority.) The Subcommittee's extremely busy schedule with the Clean Air Act of 1970 and the Resource Recovery Act of 1970 did not permit it to develop a water pollution control bill for action by the Committee on Public Works.

The 1970 water pollution hearings and the Committee's work with the Clean Air and Resource Recovery Acts contributed greatly, however, to the Committee's approach to the pending legislation in this first session of the 92nd Congress. As the Committee observed in its summary of 1969 and 1970 legislative activities:

The Committee's experience with the early legislation, and the experience of other branches of government, suggested the need for environmental planning on a broader scale. During the 91st Congress, the Committee continued to press for control of existing sources of pollution, and it began to work toward an environmental policy in which the rights to, and responsibility for, use of the air, water, and land resources would be more precisely defined.

The Committee's goal is a policy for adequate management of all forms of environmental pollution and for effective protection of the environment. A policy for air pollution only, a policy for water pollution only, a policy for solid waste disposal only, will not suffice. A broad policy and a coordinated effort are imperative.

In particular, the Committee became increasingly concerned during 1970 with the effects of pollution upon public health. In its report on the Clean Air Amendments of 1970, the Committee said in part:

The legislation reported by the Committee is the result of deep concern for protection of the health of the American people. Air pollution is not only an aesthetic nuisance. The Committee's concern with direct adverse effects upon public health has increased since the publication of air quality documents for five major pollutants (oxides of sulfur, particulates, carbon monoxide, hydrocarbons, and oxidants). These documents indicate that the air pollution problem is more severe, more pervasive, and growing at a more rapid rate than was generally believed.

[*4] The final sentence of the quotation could be applied with equal accuracy to the information developed by the 1971 hearings on the pending water pollution control legislation.

1971 HEARINGS

The oversight portion of the 1971 hearings was conducted by the Subcommittee on Air and Water Pollution on February 4, 8, and 9. Among the witnesses were the Administrator of the Environmental Protection Agency and members of his staff; the Mayors of Detroit, Michigan, and Atlanta, Georgia, and representatives of the National League of Cities and United States Conference of Mayors.

The Subcommittee's Washington hearings on 15 Senate bills were held March 15-19 and March 22-24. Among these bills were four introduced for the Administration which were similar to those considered during the 1970 water pollution control hearings.

In addition, the Subcommittee held field hearings March 26 at Rehoboth Beach, Delaware, on the problems of ocean dumping; April 2 at Kansas City, Missouri, on the problems associated with agricultural runoff; and April 5 at New Orleans, Louisiana, on the problems associated with petrochemical wastes and deep well disposal of such wastes.

Further, the Subcommittee's Panel on Science and Technology held hearings May 13 and 14 on the technology of waste water treatment and related issues.

ADEQUACY OF STANDARDS

The setting of water quality standards for interstate navigable waters, as indicated above, is the keystone of the present program for control of water pollution. The standards are intended to function in two ways:

1. As a measure of performance, the standards are expected to establish the maximum level of pollution allowable in interstate waters.
2. The standards also are intended to provide an avenue of legal action against polluters. If the wastes discharged by polluters reduce water quality below the standards, actions may be begun against the polluters.

The task of setting water quality standards, assigned to the States by the 1965 legislation, is lagging. More than 4 years after the deadline for submission of standards, only a little more than half of the States have fully approved standards. Of the 54 jurisdictions covered by the water pollution control program -- the figure includes the 50 States, the District of Columbia, Guam, Puerto Rico, and the Virgin Islands -- only 27 have fully approved standards. However, on their own motion, 44 States have also adopted intrastate water quality standards, in most cases quite similar to their standards for interstate waters.

The States have first responsibility for enforcement of their standards. When approved by the Environmental Protection Agency, however, the standards for interstate navigable waters become Federal-State standards.

[*5] A critical delay of enforcement for interstate water quality results from the water quality standards structure just described. The EPA Administrator may begin action to abate pollution only when:

1. Water quality of interstate waters is reduced below the established standards;
2. Pollution originating in one State is endangering the health or welfare of persons in another State downstream; or

3. The Governor of the State in which the pollution is originating consents to the proposed action.

ADEQUACY OF ENFORCEMENT

The continued use of the 1948 abatement procedure also contributes to delay. The record shows an almost total lack of enforcement. Under this procedure, only one case has reached the courts in more than two decades.

In that case, involving a Midwestern city, more than four years elapsed between initial conference and consent decree. The city later constructed a sewage treatment plant. Within 2 years, the plant was treating only half of the city's sewage. Five million tons of raw sewage were being dumped into the river each day.

Continued use of the 1948 abatement procedure, and the almost total lack of enforcement, encourage governing bodies and officials to search for other, more direct avenues of action against water polluters and water pollution.

One such approach which has been focused on is the use of section 13 of the 1899 Refuse Act, which declares a prohibition over the discharge of any matter into the navigable waters.

While the permit program created in late 1970 under the Refuse Act by the Administrator seeks to establish this direct approach, it is weak in two important respects: It is being applied only to industrial polluters, and authority is divided between two Federal agencies.

Experience with the permit system during the past 10 months suggests that the machinery used to date may be as cumbersome as the 1948 abatement procedure. Estimates of the number of permit applications to be received run as high as 300,000; estimates of the time required to process the applications run as long as four years.

ADEQUACY OF FUNDING

The lack of adequate funding of grants to assist States and localities in constructing sewage treatment plants is causing critical problems.

Of the \$3.4 billion authorized for this purpose by the 1966 legislation, only \$2.2 billion was appropriated. The backlog of projects eligible for Federal payments has reached a total of nearly \$2 billion.

As more States and localities move to take part in the construction program, the need for increased Federal spending is rising rapidly.

Five years ago, the Committee estimated that more than \$20 billion worth of sewage treatment plants would have to be built before 1972 in order to serve the population expected in 1980.

Estimates received by the Commission from the National League of Cities -- United States Conference of Mayors during its hearings last [*6] year place the total national need for the next five years at more than \$30 billion. The figure covers only needs already identified by local officials.

In addition to these demands for increased Federal funding, there is another problem connected with the construction grant program. A 1969 report of the General Accounting Office raises a critical question concerning the use of Federal funds.

Based on a study of eight States, the GAO report discloses that more than \$80 million of \$1 billion in Federal grants awarded to those States through 1968 was used to help build about 400 municipal treatment plants. The report states, however, that the plants were designed to treat primarily the wastes of industries located within or near the municipal boundaries.

As the size of the Federal grant program and the costs of construction increase, this kind of indirect payment to industrial users of joint treatment plants also will increase.

ADEQUACY OF INFORMATION

The Federal water pollution control program suffers from a lack of information concerning dischargers, amounts and kinds of pollution, abatement measures taken, and compliance.

The present water pollution control law allows the EPA Administrator, after an enforcement conference, to require the filing of reports by polluting industries and municipalities. The reports are to include data on discharges and actions taken to abate pollution. However, two provisions of law prevent the Administrator from obtaining adequate information. Polluters are allowed to omit from their reports any information they believe to involve trade secrets or secret processes. And the Administrator has no legal right of entry so that he may check the polluters' operations.

The situation is not so damaging as it might be, since many State programs give their officials the right to enter and inspect plants for compliance with State discharge permits.

The 1969 report of the General Accounting Office, referred to earlier, suggests how much vital information is not available to Federal enforcement officials. The GAO investigated files of State permits on 80 industrial plants discharging wastes into a 170-mile reach of the Mississippi River. The files included information on the amount of wastes being discharged by only 52 of the 80 plants.

It should be noted that one of the most important aspects of the Administration's 1899 Refuse Act permit program has been the accumulation for the first time of detailed information on the character of industrial pollution discharges.

ADEQUACY OF RESEARCH

The Federal water pollution control program also suffers from a lack of adequate research and demonstration beyond the traditional methods used in municipal treatment plants.

In primary treatment of sewage, between 30 to 50 percent of organic pollution is removed. With secondary treatment, between 50 and 90 percent is removed.

[*7] Neither of the traditional methods, then, can be completely satisfactory, and both have significant disadvantages. Primary and secondary treatment, for example, requires large capital expenditures and the use of extensive land areas.

The sludge remaining from secondary treatment can create special problems. Some localities burn sludge, thus contributing to air pollution. Other localities use sludge for landfill. Still others dump sludge into the oceans where it is hazardous to sea life.

The reliance of the Federal program upon primary and secondary treatment continues, although the program's efforts in research and demonstration is now more than 10 years old. The annual budget for research by the water quality office of the Environmental Protection Agency amounts to less than \$50 million.

COMMITTEE FINDINGS

From its two-year study of the Federal water pollution control program, the Committee concludes that the national effort to abate and control water pollution has been inadequate in every vital aspect:

-- Many of the Nation's navigable waters are severely polluted, and major waterways near the industrial and urban areas are unfit for most purposes;

-- Rivers are the primary sources of pollution of coastal waters and the oceans, and many lakes and confined waterways are aging rapidly under the impact of increased pollution;

-- Rivers, lakes, and streams are being used to dispose of man's wastes rather than to support man's life and health;

and

-- The use of any river, lake, stream or ocean as a waste treatment system is unacceptable.

<FWPCA § 101> The Committee believes the restoration of the natural chemical, physical, and biological integrity of the Nation's waters is essential. To achieve this objective, the Committee recommends that the following be adopted as national policy:

-- The discharge of pollutants into the navigable waters be eliminated by 1985;

-- An interim goal of water quality be achieved by 1981 to provide for the protection and propagation of fish, shellfish, and wildlife, and for recreation in and on the water;

-- The discharge of toxic pollutants in toxic amounts be prohibited;

-- Federal grant assistance be provided to any community which constructs a waste treatment facility which is consistent with the program set forth by the Congress;

-- Regional waste management treatment programs be developed and implemented to assure adequate control of all sources of pollution in each State; and

-- A major research and demonstration effort be initiated to find the technological methods necessary to eliminate waste discharges.

THE LEGISLATION

<FWPCA § 301> The legislation recommended by the Committee proposes a major change in the enforcement mechanism of the Federal water pollution control program from water quality standards to effluent limits.

[*8] Under the 1965 Act, water quality standards were to be set as the control mechanism. States were to decide the uses of water to be protected, the kinds and amounts of pollutants to be permitted, the degree of pollution abatement to be required, the time to be allowed a polluter for abatement.

The water quality standards program is limited in its success. After five years, many States do not have approved standards. Officials are still working to establish relationships between pollutants and water uses. Time schedules for abatement are slipping away because of failure to enforce, lack of effluent controls, and disputes over Federal-State standards.

The Committee adopted this substantial change because of the great difficulty associated with establishing reliable and enforceable precise effluent limitations on the basis of a given stream quality. Water quality standards, in addition to their deficiencies in relying on the assimilative capacity of receiving waters, often cannot be translated into effluent limitations -- defensible in court tests, because of the imprecision of models for water quality and the effects of effluents in most waters.

Under this Act the basis of pollution prevention and elimination will be the application of effluent limitations. Water quality will be a measure of program effectiveness and performance, not a means of elimination and enforcement.

The Committee recommends the change to effluent limits as the best available mechanism to control water pollution. With effluent limits, the Administrator can require the best control technology; he need not search for a precise link between pollution and water quality.

It is the Committee's intent to restore the balance of Federal-State effort in the program as contemplated by the 1965 and 1966 Acts. The Committee is particularly concerned that there should be a balanced effort in the discharge

permit system initiated under section 13 of the 1899 Refuse Act.

<FWPCA § 402> The permit system establishes a direct link between the Federal government and each industrial source of discharge into the navigable waters. This permit system is independent of the Federal-State program set up by the 1965 Act which contributes to uncertainty among all concerned.

<FWPCA § 402> The permit system, as restated by this legislation, prohibits the discharge of pollutants into the navigable waters.

<FWPCA § 402> The legislation will restore Federal-State balance to the permit system. Talents and capacities of those States whose own programs are superior are to be called upon to administer the permit system within their boundaries. The Administrator is to suspend his activity, insofar as the permit system is concerned, in these States.

<FWPCA § 304> In order to carry out the objective of this legislation, a two-phase program for applying effluent limits is created; the first based on best practicable technology, the second based on best available technology.

<FWPCA § 304> In Phase I, to be implemented by 1976, all industrial pollution sources must apply the best practicable technology. Communities will be required to have secondary treatment construction programs by June 30, 1974.

<FWPCA § 304> In Phase II, to be implemented by 1981, communities and industries will be required to apply, where the goal of no-discharge cannot be attained, the best available technology.

[*9] Until State programs are approved, the Administrator of the Environmental Protection Agency is authorized to regulate discharges of pollutants through the use of an expanded permit program. He also may ban the discharge of any toxic pollutant.

Progress toward the national goal is to be assisted through the following steps:

The legal base for use of Federal permits to regulate the discharge of pollutants is reinforced and improved.

The scope of the 1899 Refuse Act is broadened; the administrative capability is strengthened.

Where the Administrator can identify a direct link between a discharge source and water quality, the Administrator is authorized to tighten controls on the polluter.

Wherever attainable, an interim goal of water quality is to be achieved by 1981 providing for the protection and propagation of fish, shellfish, and wildlife, and for recreation in and on the water.

To assist States and localities, the bill proposes a 4-year program of Federal grants for construction of sewage treatment plants. The Federal matching funds total \$14 billion through fiscal year 1975.

The minimum Federal grant is set at 60 percent of project cost. If a State contributes as much as 10 percent of project cost, the Federal grant is increased by a matching 10 percent. A locality's share thus becomes 20 percent of project cost.

<FWPCA § 201> The bill requires grantees to use the best practicable methods for waste treatment. After fiscal year 1974, all grantees must evaluate available methods for recycling and reclaiming wastes, including the use of confined and contained disposal of pollutants.

<FWPCA § 208> The bill requires Governors and local officials, in cooperation with the Administrator, to develop plans for areawide waste treatment management in areas with critical water pollution control problems. The plans are to be completed by July 1, 1974.

<FWPCA § 208> In addition to municipal and industrial wastes, the areawide plans are to include procedures to control agricultural runoff, surface and underground mine runoff, construction runoff, and disposal of pollutants on land or in excavations.

<FWPCA § 206> The bill also provides reimbursement for sewage treatment plants built without Federal assistance during earlier stages of the Federal program. Plants begun between fiscal year 1956 and fiscal year 1966 are eligible for grants equal to 30 percent of project cost. Plants begun after June 30, 1966 are eligible for grants equal to 50 percent of project cost. A total of \$2.4 billion is authorized for this purpose.

A discretionary fund of \$200 million is set aside for the Administrator's use where costs of regional sewage treatment plans may exceed State and local entitlement to the Federal grants. The fund is intended to assist such projects as the District of Columbia's Blue Plains plant, a major polluter of the Potomac River.

<FWPCA § 204> Grantees must adopt a system of user chargers to assure that each class of users will help to pay the costs of operation and maintenance, including replacement, of sewage treatment plants financed with Federal grants.

In this context, each industrial user of such facilities must agree by contract to pay back the portion of Federal share of construction [*10] cost allocable to the industrial user's wastes. These payments are to be received by the Administrator and deposited in the Federal Treasury.

<FWPCA § 301> The bill makes unlawful the dumping or disposal of any radiological, chemical or biological warfare agent, or high-level radioactive waste into the navigable waters.

Discharges into the territorial seas or discharges from ocean outfalls are subject to the regulations applicable to discharges into the domestic, navigable waters.

<FWPCA § 306> For new, point sources of discharge, the bill requires the Administrator to set uniform standards of performance. These standards must reflect the maximum reduction of pollutants possible through use of the best available control technology. Twenty-eight types of industry listed by the bill are to be covered by the performance standards. Each State may develop and submit to the Administrator a procedure for enforcing the performance standards for new, point sources located within the State.

<FWPCA § 104> The bill also requires the Administrator to conduct research into better methods of controlling pollutants from non-point sources such as agricultural runoff. A total of \$10 million is set aside for the agricultural research.

<FWPCA § 314> Further, each State is required to adopt methods for control of pollution in fresh water lakes within the State. Restoration of water quality in these lakes is to be assisted by Federal funds.

<FWPCA § 309> The task of enforcing provisions of the bill is assigned to the Administrator. He is authorized to enforce permit violations immediately, or if a State fails to act within 30 days after receipt of a notice of violation, the Administrator may issue an order to comply or go to court against the violator.

<FWPCA § 309> Civil and criminal penalties are provided. A second conviction shall be punished by a fine of not more than \$50,000 per day of violation, two years in prison, or both.

<FWPCA § 505> Under the bill, citizens themselves may go to United States District Courts against those who violate effluent standards or compliance orders. Citizens may also go to court against the Administrator for failure to carry out non-discretionary duties under the law.

[*11] DISCUSSION OF INTENT

TITLE I -- RESEARCH AND RELATED PROGRAMS

[**101] SECTION 101 -- DECLARATION OF POLICY

<FWPCA § 101> This section establishes a policy that the discharge of pollutants should be eliminated by 1985, that the natural chemical, physical, and biological integrity of the Nation's waters be restored, and that an interim goal of a water quality allowing fish propagation and suitable for swimming should be reached by 1981. The States are declared to have the primary responsibility and right to implement such a goal.

<FWPCA § 101> The policy declaration of the Federal Water Pollution Act has been revised substantially in order to represent the departure in Federal water pollution control policy from a water quality standards control mechanism to a discharge control mechanism.

<FWPCA § 101> The objective of the Act is to restore and maintain the natural chemical, physical, and biological integrity of the Nation's waters. The policy is set forth that, consistent with the provisions of the Act, the discharge of pollutants into the navigable waters be eliminated by 1985.

<FWPCA § 101> This policy, supplemented by other provisions of the Act relative to the control of toxic pollutants, construction of waste treatment facilities, research and demonstration, and regional waste treatment management, provides an overall identification of program goals and methods of program implementation.

<FWPCA § 101> It is important to recognize that the interim goal of water quality -- to be achieved by 1981, and providing for the protection and propagation of fish, shellfish and wildlife and also providing for recreation in and on the water -- continues the essence of the water quality standards program. The interim goal also recognizes (as set forth in Section 302 <FWPCA § 302>) the difficulty of establishing effluent limitations which precisely relate to the maintenance or achievement of a specific water quality criteria.

<FWPCA § 101> The Committee recognizes the difficulty of implementing a no-discharge policy. The development of the midcourse correction information, required by Section 305 <FWPCA § 305>, should provide the Congress and the public with the definitive data needed to evaluate fully the implications of a no-discharge policy. That information will assist the Nation in any decision on the proper enforcement mechanism to be established to support the goal, if appropriate, or a decision to refine the date for the attainment of the goal with greater precision, if required, or the extent of the exceptions to that goal, if any, or whether the costs associated with reaching this ultimate standard, in some instances, may far outweigh the benefits derived. In the interim, the goal set forth in Section 101 should provide the Administrator and the States with [*12] the direction and the mandate to direct research efforts toward developing the technology to apply a no-discharge standard. Without a clearly set goal of natural water quality achieved through application of a no-discharge policy, it is not likely that resources will be applied to develop the means necessary to achieve an environmentally and ecologically sound water quality goal.

<FWPCA § 101> A high degree of informed public participation in the control process is essential to the accomplishment of the objectives we seek -- a restored and protected natural environment.

<FWPCA § 101> Section 101(d) is included because the Committee recognizes that the manner in which these measures are implemented will depend, to a great extent, upon the pressures and persistence which an interested public can exert upon the governmental process.

<FWPCA § 101> The Environmental Protection Agency and the State should actively seek, encourage and assist the involvement and participation of the public in the process of setting water quality requirements and in their subsequent implementation and enforcement.

<FWPCA § 101> Information and education programs should be devised which will acquaint the public with the complexity of the water quality control process and provide them with the technical information. To accomplish this, the Environmental Protection Agency should look to the utilization and support of such devices as community workshops and other assistance activities which were developed and utilized so effectively in the implementation of the

Clean Air Act.

[**102] SECTION 102 -- COMPREHENSIVE PROGRAMS FOR WATER POLLUTION CONTROL

<FWPCA § 102> The Administrator retains authority to develop programs for eliminating water pollution as he shall determine the need and value of any water quality storage that may be incorporated in any reservoir project. Fifty percent matching grants for riverbasin planning are combined.

<FWPCA § 102> Section 102 of the bill parallels Section 3 of existing law. Subsection (b) is modified to make it clear that regulation of streamflow, while a legitimate project purpose, cannot substitute for adequate waste treatment or other methods of eliminating waste at the source. Under the amended language, the Administrator is given the responsibility for determining when low flow augmentation is an appropriate technique for supplementing primary pollution control programs.

<FWPCA § 102> Pursuant to section 3(c) of the existing Federal Water Pollution Control Act, the States -- or, with the approval of the Governor, subdivisions of States -- are eligible for Federal grants to assist the development of comprehensive river basin plans.

<FWPCA § 102> The concept of river basin planning is important to the development of programs which will achieve and maintain water quality objectives. Only a limited number of grants have been made under the existing law because of inadequate funding. The need for river basin planning continues and, therefore, the Committee bill continues the authority for river basin planning grants to States and their subdivisions in subsection (c) of section 102. A separate, expanded authorization is provided to carry out the program.

[**103] [*13] SECTION 103 -- INTERSTATE COOPERATION AND UNIFORM LAWS

<FWPCA § 103> This section restates section 4 of existing law, with minor conforming language changes.

[**104] SECTION 104 -- RESEARCH, INVESTIGATIONS, TRAINING, AND INFORMATION

<FWPCA § 104> The authority of the Administrator in support of research programs to prevent and eliminate water pollution is continued and expanded.

<FWPCA § 104> The Administrator is authorized to establish field research laboratories in six sections of the Nation and to study the nature of river systems and sewage in rural areas. Authorization for a one-year study of problems associated with the disposal of waste oils, such as lubricating oils, is included in this section.

<FWPCA § 104> New authorizations in this section also provide for research into means to reduce unnecessary water consumption, as well as research, in cooperation with the Secretary of Agriculture, on problems associated with the control of agricultural pollution. Ten million dollars is authorized in fiscal year 1972, and annually thereafter, for this agricultural pollution research.

<FWPCA § 104> Another \$7,500,000 is authorized in fiscal year 1972 to continue a pilot training program for personnel to operate and maintain treatment works. In fiscal year 1972 \$2,500,000 is authorized to continue work on the forecasting of employment needs in water pollution control. In addition to such special authorizations, there is a general authorization for this section of \$65,000,000 in fiscal year 1972, \$70,000,000 in fiscal year 1973, \$75,000,000 in fiscal year 1974, and \$80,000,000 in fiscal year 1975.

<FWPCA § 104> Section 104 of the bill incorporates many elements of the research authority of existing law and expands and redirects such authority to reflect the policy set forth in section 101 <FWPCA § 101> and the requirements which would be established in the operative sections of the Act. In order to restore the natural chemical, physical, and biological integrity of the nation's waters, a great deal more must be learned about the nature and functioning of aquatic

ecosystems and the impact of improper land use development.

<FWPCA § 104> The burden on the Administrator to develop information to implement Titles III and IV of this Act will require broad and intensive research efforts. The Committee expects the Administrator to carry out research on how water quality is affected by the discharge of pollutants from point sources, the uncontrolled runoff of pollutants from land, from accumulated in-place deposits and from other sources.

<FWPCA § 104> The rigid controls on toxic substances to be established under section 307 <FWPCA § 307> require analysis of toxic pollutants and their effects on human health.

<FWPCA § 104> In addition to the general research authority, section 104 provides specific authority to support training and academic programs.

<FWPCA § 104> The Committee believes that the training programs in this section offer many opportunities to increase the efficiency in the operation of existing waste treatment plants. The Committee, however, notes that current Federal programs have concentrated on the training of new [*14] employees to meet the backlog of unfilled jobs in the field. This is important and necessary.

<FWPCA § 104> But the Committee also believes that there are many opportunities to improve the operation of existing facilities through occasional training sessions for present employees. Much of this training could be accomplished on-the-job, allowing an instructor to work in the plant with the operator-trainee. The language of Section 104(b) (5) clearly permits such training, and the Committee expects that the Environmental Protection Agency will initiate efforts to assist the States that wish to create and operate effective on-the-job training programs.

<FWPCA § 104> One new provision added to this section directs the development of a national water quality monitoring and surveillance system through which to accurately inventory and determine the actual quality status of all water of the Nation. The Committee has been deeply disturbed by the inadequacy of information that exists on the quality of the nation's waters. Proper implementation of this new authority should remedy that deficiency. It will be particularly important in supplying the techniques by which the requirements of section 305 for an accurate assessment of the quality of the Nation's waters as they exist and as they compare to the water quality objectives to be met.

The Committee received disturbing testimony from nongovernment sources concerning the quality of the Environmental Protection Agency's existing water quality monitoring program. The Administrator must give close attention to this program to insure high performance.

<FWPCA § 104> In addition to the provisions which direct the Administrator to make full distribution of the information generated from the research under this section to interested parties, the section continues specific research programs on the problems of fresh water lakes, the Great Lakes, water use and waste water generation, estuarine pollution, and sewage from vessels.

<FWPCA § 104> Subsection (l) of Section 104 of the bill authorizes a study of methods to deal with the disposal of various types of waste oils. The accumulation of used engine, machine, cooling, and similar oils presents a difficult pollution problem. Evidence presented to the Committee indicates that between one billion and two billion gallons of waste oil are generated yearly in the United States. Some of this oil is presently re-refined into oil for reuse as a lubricant. Some of this waste oil can be used as fuel. But too often, this waste oil is surreptitiously dumped into streams or onto the land, causing considerable pollution.

The American people were greatly concerned at the damage created when a well discharged 60,000 barrels of oil into the ocean off Santa Barbara, California, in early 1969. According to calculations made earlier this year by EPA, that as much used engine, machine, and similar oil is presently dumped into our environment every 36 hours.

Various Federal decisions concerning the labeling of waste oil and tax provisions affecting waste oil appear to have

been a significant factor in the decline in recent years in the reuse of this waste oil.

<FWPCA § 104> This subsection directs EPA to undertake a full study of the legal and psychological impediments to the utilization of waste oil and to [*15] determine whether the Federal Government can and should develop methods for encouraging its reuse. One possible method would be the purchase, on a preference basis, by the government of products made from waste oil. Another possible field of study could be what regulations, if any, might be imposed on the processors of crude oil to encourage or require the collection of waste oil at the points of sale of new oil.

<FWPCA § 104> The Administrator is directed to make its report to the Congress within one year.

<FWPCA § 104> In view of the objective of the Act to restore the natural integrity of the nation's waters, the Committee has included a new subsection 104(m) authorizing the designation of River Study Centers, to be regionally located and provided with Federal financial support.

<FWPCA § 104> Through interdisciplinary studies, such centers could apply existing and developing knowledge to the problems, often complex and always interrelated, of growth and development within river basins and the impact of that development on the best use of water resources and on the value of water-dependent activities.

Long tradition and practice support the use of rivers for transportation, for water supply, for energy, for recreation and beauty -- and, unfortunately, for waste disposal as well. It is now clear, however, that in many cases man's use has brought the natural drainage systems to a point of diminishing value, and often to a critical point neither anticipated nor well-understood.

Man's activities have had, and will continue to have, a profound effect upon our natural drainage systems. But on the whole, we have taken our river systems for granted and have given too little attention to the scope and character of these changes. It is time they were examined with more precision, so they may be taken more fully into account.

<FWPCA § 104> This proposal for the establishment of one or more River Study Centers at the suggestion of the University of Louisville, and the Committee believes the establishment of such Centers can make a contribution in the application of knowledge and experience to better planning and practice.

<FWPCA § 104> Subsection (o) adds authority for the Administrator to conduct research and investigations on devices and methods which reduce unnecessary water consumption for domestic and other purposes in order to reduce the costs of sewage and waste treatment services. Such research should produce devices and methods which achieve the maximum reduction of unnecessary water for domestic and other purposes.

Water pollution resulting from agricultural production is clearly a growing problem of great magnitude and complexity. Agriculture is now one of the major contributors to the degeneration of the quality of our navigable water. The basic problem is one of managing the inputs and outputs of agricultural production to maintain the quality of the water, air, and soil environment while economically producing food and fiber.

Progress has been made in agricultural research but we must go beyond it to meet the present challenge. Until we compile adequate identification, analysis, and evaluation of existing programs and methods; vigorously study alternative production decisions available to [*16] agricultural producers at various steps of the production process; and develop information of about the social, legal, and economic impacts of these methods, we will have little impact on the enormous problem of agricultural water pollution.

<FWPCA § 104> Subsection (p) provides that the Administrator shall carry out a comprehensive study and research program to determine new and improved methods of preventing and controlling water pollution from agriculture, including legal, economic, and other implications of the use of such methods.

<FWPCA § 104> Subsection (g) authorizes the Administrator to conduct research and make grants for

demonstration programs for new and improved methods of preventing, abating, reducing, storing, collecting, treating or otherwise eliminating water pollution from sewage in rural and other areas where collection of sewage in conventional, community-wide sewage collection systems is impractical, uneconomical, or otherwise infeasible, or where soil conditions or other factors preclude the use of septic tank and drainage field systems.

There are large areas of the country in which the population is widely dispersed and separated by topographical barriers. While some of these areas have relatively heavy populations, they are so located that conventional sewage collection and treatment systems are not feasible.

The usual method for collection and disposal of sewage under such circumstances is by the use of septic tanks and drainage fields. There are, however, large areas in which soil conditions preclude the use of septic tanks and drainage fields. These situations provide particular problems in mountainous areas such as the Appalachian Region.

<FWPCA § 104> The Committee recommends that specific attention be given to the sewage disposal needs of such areas, and that research and demonstration efforts be initiated which would test the engineering and economic feasibility of alternative methods of meeting this problem. For instance, perhaps collection lines would be used, but the treatment unit could be comprised of a spray irrigation facility on an uninhabited mountainside (including appropriate bacteriological and viral controls) instead of a traditional primary and secondary treatment plant. In addition, attention should be given to the social and institutional practicalities of such alternatives.

In addition, in many rural areas and small towns and villages it is not economically feasible to build conventional sewage treatment systems due to the restricted incomes of persons and families in these areas. Even with substantial increases in the percentage of Federal funding, conventional sewage systems most likely will not be constructed.

According to the Farmers Home Administration, these circumstances pose obstacles to the financing and constructing of new homes in areas of this description, but more importantly, also serve to prevent people already living in areas of this kind from upgrading the quality of their housing.

[**105] SECTION 105 -- RESEARCH AND DEMONSTRATION PROGRAMS

<FWPCA § 105> The Administrator of EPA is authorized to conduct in-house demonstration projects or contract for such projects designed to [*17] eliminate pollution reaching the navigable waters through storm water runoff or industrial activity.

<FWPCA § 105> EPA is authorized to undertake a model river demonstration project of advanced pollution control and in-stream enhancement techniques. Demonstration projects on control of agricultural pollution are authorized.

<FWPCA § 105> Any Federal grant under this section is limited to 75 percent of the cost. In fiscal 1972, \$70,000,000 is authorized for this section, with the total increased by \$5,000,000 annually each year thereafter through fiscal 1975. At least 10 percent of the sums actually appropriated in any fiscal year must be spent on programs dealing with agriculture.

<FWPCA § 105> This section continues and expands the demonstration program authority provided by section 6 of existing law.

<FWPCA § 105> Throughout the bill there is great emphasis on control technology, process change, and other alternatives to ultimately eliminate the discharge of pollutants into the Nation's waters. To achieve compliance with such objectives it will be necessary to undertake on an extensive program of demonstration projects in order to rapidly expand technological responses available to meet the national objective. Necessarily such demonstration projects will have to be comprehensive and integrated rather than piecemeal.

<FWPCA § 105> Subsection (b) of section 105 authorizes the Environmental Protection Agency to undertake demonstration projects on new or improved methods for the enhancement of water quality.

The Council on Environmental Quality, in its first annual report to the President and the Congress in 1970, proposed such a model river program. The Council stated:

The Council recommends that efforts be made to provide a demonstration in one river basin of the most advanced concepts of water quality management. Such a demonstration might use regional treatment facilities; nontreatment alternatives such as in-stream aeration and low flow augmentation; and new financial incentives, such as effluent charges. The proposal would demonstrate the techniques to meet water quality management needs in the future, when the problems from increasing population and industrialization grow even more acute.

While the Committee believes that this approach has great merit and should be initiated in one or more selected river basins or portions of river basins.

While the Committee believes that this approach has great merit and would be useful in the heavily polluted industrial rivers. While the improvement in water quality of such a river is desirable and mandated in Title III of this bill, this demonstration project is directed at a variety of pollution problems.

An appropriate location for such a model river study may be the Brandywine River. The Brandywine, which rises in Pennsylvania and flows into the Christmas River in Delaware, and then into the Delaware River, offers the necessary wide variety of municipal, industrial, and agricultural pollution problems that could be met effectively to demonstrate new techniques for water quality enhancement. The Administrator to develop a model river program as soon as practicable.

<FWPCA § 105> The Committee has included specific authority for the conduct of demonstration projects on agricultural pollution problems. Grants under section 105(d) will be made by the Administrator, in consultation with the Secretary of Agriculture, and the information derived from demonstration projects will be disseminated in cooperation with the Secretary of Agriculture. The Administrator should work closely with the Secretary to the maximum practicable extent to utilize the resources, channels of communication to the agricultural community, and the experience of the Department of Agriculture in carrying out his responsibilities under this section.

<FWPCA § 105> It should be noted that the limitation in existing law that no demonstration grant should exceed \$1 million has been removed in recognition that many demonstration projects for municipal and industrial pollutant discharge control will require expenditures greatly in excess of that figure.

<FWPCA § 105> In addition the authorization is increased to reflect the urgency of the demonstration program, yet held to the lowest levels the Committee feels, can be authorized without jeopardizing the program.

<FWPCA § 105> It is essential that the Administrator, in carrying out the functions under section 105 as well as section 104 <FWPCA § 104>, establish priorities which match the priorities of the objectives of the Act and regulatory program established thereunder. The Committee recognizes that many of the specific programs authorized in sections 104 <FWPCA § 104> and 105 may be underfunded or even postponed while the research, development, and demonstration is undertaken to support compliance with rigorous requirements established under this Act.

[**106] SECTION 106 -- STATE PROGRAMS

<FWPCA § 106> Grants to States are authorized in an effort to assist the States in carrying out an effective water pollution control program. Allocation of funds is to be based on population and the extent of water pollution problems.

<FWPCA § 106> To qualify for a grant, a State must certify that it shall maintain its water quality program each year at the level of its recurrent expenses during fiscal 1971. If the State reduces its spending, the Administrator shall

reduce the EPA grant proportionately.

<FWPCA § 106> Beginning in fiscal 1973, a State, in order to qualify for a program grant, must begin to develop Section 209 <FWPCA § 208> plans, indicate that it has begun work on its section 305 <FWPCA § 305> study, and impose monitoring requirements on point source owners. This section authorizes \$30,000,000 each for fiscal 1972 and for fiscal 1973, with \$35,000,000 authorized for fiscal 1974 and \$40,000,000 for fiscal 1975.

<FWPCA § 106> Section 106 provides for Federal financial support for State and interstate programs of water pollution control.

<FWPCA § 106> The State and interstate programs would continue to include the elements previously supported under the prior Section 7 of the Federal Water Pollution Control Act, and would embrace new elements necessary to implement requirements under the 1971 amendments, including: development of regional waste treatment management [*19] plans, advanced monitoring systems, controls for locating new discharge sources, intergovernmental cooperation, data collection, analysis and reporting.

<FWPCA § 106> The objective of this Act will be met only if the States have vigorous and adequate pollution control programs. In fact, in those States where such programs have already been established the quality of the control program is high. However, there are many States with serious deficiencies in the quality of their program, often caused by a serious inadequacy in the level of funding and manpower. It is the purpose of Section 106 of the Committee bill to increase the level of Federal financial assistance to the States so that they are capable of fully implementing the 1971 amendments.

<FWPCA § 106> A new mechanism for funding State and interstate programs is provided whereby State matching requirements increase from year to year, calculated on a base year of fiscal year 1971. This is intended to encourage the necessary expansion of such programs and of State financial participation in such programs. This sharing of increased State financial participation.

Authorizations for appropriations of Federal grants will increase from \$30 million for fiscal year 1972 (as compared with \$10 million under present authorization) to \$35 million for fiscal year 1974, and \$40 million for fiscal year 1975.

<FWPCA § 106> Flexibility is provided the Administrator to determine the adequacy of State programs in the light of changing regulatory requirements, new technology and other circumstances and to adjust State and interstate support accordingly.

A regulatory program premised on a Federal-State relationship is necessarily dependent upon the quality of the respective administrative programs. At the Federal level there has been underfunding and understaffing. The increased authorization of appropriations under section 516 <FWPCA § 517>, is, in part, aimed at remedying this deficiency.

The Committee was disturbed by the reports from many States about the paperwork and the associated administrative burden in preparing an application for a Federal program assistance grant. Any time procedural aspects begin to erode and interfere with the substance of a program the law is not being properly implemented. The Committee, therefore, expects the Administrator to review the application procedures so they may be expedited.

<FWPCA § 106> Formal review and analysis of the quality of State programs for the purpose of reviewing applications for program grants should be held to the minimum necessary to assure compliance with the requirements of the bill.

The Committee, through its hearings and staff investigations, noted substantial hostility in many States toward the Federal program. An attitude of competition rather than cooperation seemed to prevail. The Committee expects the Administrator as a first priority to take steps to provide the leadership to create a meaningful working relationship with

the States.

<FWPCA § 106> In addition to fiscal and other basic program requirements, the bill requires as a condition to Federal assistance compliance with elements essential to a high level of performance in State water pollution control programs. These elements include monitoring water quality, reviewing and regulating the location of new sources of discharge, setting priorities for waste treatment works construction, and procedures to assure non-degradation of water quality and, to assure no alteration of the quality of any waters which meet the objectives of this Act.

[**107] SEC. 107 -- MINE WATER POLLUTION CONTROL DEMONSTRATIONS

<FWPCA § 107> In cooperation with the Appalachian Regional Commission, EPA is authorized to conduct demonstration projects for control of mine water runoff and related water pollution problems, including a study on the feasibility of using sewage sludge to prevent mine water pollution and to restore mined areas.

<FWPCA § 107> Section 107 of this bill contains revisions of the mining area pollution control demonstration program to permit its more effective implementation.

In developing amendments to the Federal Water Pollution Control Act in 1969 and 1970 the Committee gave major attention to the problems caused by acid discharges into watercourses as the result of mining activities.

In areas of the country where mining is a major activity, streams have been seriously affected by acid drainage from active and inoperative or abandoned mines. Such drainage impairs water quality in these areas and makes affected streams unable to support fish or animal life and unsuitable for industrial, recreational and public water supply uses.

Acid mine drainage is a particularly severe problem in States of the Appalachian region where much of the Nation's coal mining is concentrated, forming a major portion of the economic base. In these areas acid drainage and other mine-related pollution are a serious deterrent to the improvement of the quality of life and to economic expansion and diversification.

In Appalachia alone there are more than 5,700 miles of streams polluted by acid mine drainage with the heaviest concentrations in Pennsylvania, West Virginia, Ohio and Maryland.

In the Water Quality Improvement Act of 1970 (PL 91-224) grants were authorized to support projects demonstrating on an area-wide basis technological and economic feasibility of methods for controlling acid pollution caused by mining. Subsequent evaluation of this program by the Committee has shown the need for changes in the law.

Studies by the Appalachian Regional Commission and other agencies have shown the Monongahela River Basin in West Virginia and Pennsylvania may be suited for a large-scale demonstration program in the control of mine-related pollution.

<FWPCA § 107> These amendments increase authorizations for the demonstration program from \$15 million to \$30 million. Should the Administrator and the Commission find that a large scale demonstration project within the Monongahela River Basin would be useful, the additional authority available may be used to fund such a project.

<FWPCA § 107> The serious problems caused by siltation resulting from surface mining are recognized and demonstration programs to alleviate this situation are essential. The additional funding will permit greater activity in this field.

[*21] <FWPCA § 107> Advanced waste treatment techniques produce large amounts of sludges and other solid materials that pose difficult disposal problems. There is some evidence that sludges, alone or in conjunction with other municipal wastes, can be used in a positive way to reduce water pollution from abandoned, mined-out areas and make them suitable for beneficial uses. Section 107 explicitly calls for demonstration projects using sewage sludge materials

and other municipal wastes for mine-water pollution control and restoration of the lands for beneficial uses.

<FWPCA § 107> The Committee believes that programs to clean up acid mine drainage should be coordinated in a comprehensive attack on all pollutants affecting water quality and water use in the Basin. The correction of the single problem of mine drainage will not result in the increased water and resource use expected if other significant pollutants affecting water quality and water use continue to exist. Degradation of the land from past mining, the casual dumping of solid wastes, and other activities also impair the area's ability to increase the use of its resources and to grow.

<FWPCA § 107> Section 107 also requires the active involvement of the Appalachian Regional Commission in the identification and planning of projects within its area of jurisdiction and the timing and phasing of these activities. This is needed to insure consistency of these projects with the overall aims and objectives of the total Appalachian development program, and with the Commission's own mandate to work for the resolution of mine-related pollution problems.

<FWPCA § 107> The Committee found that certain restrictive requirements in administrative interpretation and regulations under existing law have hampered full implementation of this program. Section 107 eliminates the requirement that states pay 25 percent of project costs (although retaining the requirement that states acquire lands utilized in projects), and makes other changes to expedite the implementation of this program. But the full benefits of this program can be realized only if the Environmental Protection Administration and the Appalachian Regional Commission cooperate in seeking the early commitment of these funds.

[**108] SECTION 108 -- POLLUTION CONTROL IN GREAT LAKES

<FWPCA § 108> This section of the bill restates section 15 of existing law, with minor conforming language changes.

[**109] SECTION 109 -- TRAINING GRANTS AND CONTRACTS

<FWPCA § 109> The Committee has made only one change in existing law providing for training grants. The change would enable the Administrator to utilize his authority to make grants for construction of waste treatment works under Title II to provide for the construction of necessary education and training facilities for treatment work operation and maintenance personnel. Such facilities would be additions to treatment works.

<FWPCA § 109> As was pointed out in the GAO Study on the operation and maintenance of waste treatment works, one of the most disappointing aspects of the overall water pollution control program, and specifically of waste treatment management, has been the poor performance of treat- [*22] ment works attributable to inadequately trained operation and maintenance personnel. Because of such inadequate performance, treatment works operation is often so poor their value is effectively negated at times and waste is discharged which is inadequately treated or not treated at all.

[**110] SECTION 110 -- TRAINING PROGRAM ALLOCATIONS

<FWPCA § 110> This section of the bill restates section 17 of existing law, with conforming language changes.

[**111] SECTION 111 -- SCHOLARSHIPS

<FWPCA § 111> This section of the bill restates section 18 of existing law, with conforming language changes.

[**112] SECTION 112 -- TRAINING PROGRAM AUTHORIZATION

<FWPCA § 112> \$25,000,000 is authorized in fiscal 1972 to carry out the provisions of Sections 109 <FWPCA § 109>, 110 <FWPCA § 110>, 111 <FWPCA § 111>, and 112 <FWPCA § 112>.

This is section 19 of existing law, eliminating the authorizations for past fiscal years.

[**113] SECTION 113 -- ALASKA VILLAGE DEMONSTRATION PROJECTS

<FWPCA § 113> This section of the bill restates section 20 of existing law, with conforming language changes.

[**114] SECTION 114 -- POLLUTION CONTROL IN LAKE TAHOE

<FWPCA § 114> A demonstration project is authorized for control of non-point sources of pollution in the Lake Tahoe Basin. No Federal project that may result in a discharge into Lake Tahoe may go forward until after the Administrator has had the opportunity to bring his views on the project to public attention. \$6,000,000 is authorized for this Section.

The Lake Tahoe Basin is a unique National resource urgently requiring effective Federal action to preserve its environmental quality.

<FWPCA § 114> Section 114 authorizes the Administrator, in consultation with the Tahoe Regional Planning Agency and other interested Federal and State agencies, to design and carry out projects to develop and demonstrate comprehensive water pollution control programs in areas subject to the jurisdiction of the Tahoe Regional Planning Agency.

<FWPCA § 114> Nonpoint sources of pollution are a major continuing threat to the Lake Tahoe Basin. Controls over such sources are required to maintain and enhance the quality of water in the Tahoe Basin and should provide data and solutions for water pollution control problems experienced elsewhere in the Nation. Section 114 makes funds available for planning and other described activities, subject to the requirements set forth in Subsection (a).

Section 114(b) authorizes the Administrator to review, in consultation with the Tahoe Regional Planning Agency, any Federal or Federally assisted public works project, any expenditures of Federal funds, any Federal licenses or permits, any Federal insurance and any Federal guarantees of loans in all cases where, in the judgment of the Administrator, such Federal activities may result directly or indirectly in discharges into the navigable waters of the Basin.

Before the Federal actions described in Section 114(b) may be taken, the Administrator must complete his review and comply with the requirements of Section 309 of the Clean Air Act. No permits pursuant to Section 402 <FWPCA § 402> shall be granted which are not consistent with any determination made under Section 114 and Section 309 of the Clean Air Act.

<FWPCA § 114> Under Section 114(c), the Administrator shall report to the Congress, within 180 days of the enactment of the Federal Water Pollution Control Act Amendments of 1971 and annually thereafter, on (1) the environmental impact of all development in the Tahoe Basin area; (2) the adequacy of plans developed by the Tahoe Regional Planning Agency to maintain and enhance environmental quality within the Basin; and (3) demonstration projects authorized by this Section, including an analysis of results. It is intended that this process shall authorize and direct a continuing Federal review by the Environmental Protection Agency of development activities, environmental quality and regional planning in the Tahoe Basin area.

<FWPCA § 114> Section 114(d) provides an authorization of \$6,000,000 which shall be available until expended. It is intended that such funds supplement, not supplant, any funds available under other provisions of the Federal Water Pollution Control Act Amendments of 1971.

TITLE II -- GRANTS FOR CONSTRUCTION OF TREATMENT

WORKS

[**201] SECTION 201 -- PURPOSE

<FWPCA § 201> This title has the objective of assisting in the development of waste treatment management plans and practices to eliminate the discharge of pollutants. Toward that goal, the best practicable technology is to be used, which shall include recycling of water, where practical. Waste management is to be developed on a regional basis.

<FWPCA § 201> Beginning in fiscal 1975, the Administrator shall reject any Section 207 <FWPCA § 207> construction grant application which would result in any discharge of pollutants, unless the applicant demonstrates to the Administrator that alternative waste treatment techniques have been considered, and that the proposal will result in the best practicable treatment.

<FWPCA § 201> Section 8 of the existing Federal Water Pollution Control Act provides very little guidance as to the purposes of the waste treatment facility construction grant assistance program. The tremendously increased level of funding for construction proposed by the 1971 amendments requires that Congress give some policy direction to the Administrator in carrying out this program and to maximize the return on the public tax dollar. The Committee has, therefore, included a requirement that Federal assistance for the construction of waste treatment facilities must require, where appropriate, practices which will recycle and reclaim water and provide for the contained or confined [*24] disposal of pollutants. This bill would establish a policy in concert with the fundamental ecological principle that, to the extent possible, all materials should be returned to the cycles from which they were generated. Properly managed, this means pollutants do not escape or migrate to cause degradation of the water, air or land environment.

<FWPCA § 201> The Committee has undertaken to establish a procedure which requires that each applicant make an analysis of alternative waste treatment management schemes, with the burden upon the applicant to examine all available alternative waste management techniques, and, if a method is recommended which will not comply with the statement of policy, to show why. The statement of purpose, coupled with the burden of proof should, in the context of vigorous public participation and expanded research and development programs cause a re-orientation of waste treatment technology toward more sustained and productive results.

Conventional treatment methods currently being funded under section 8 of existing law, for many reasons, are not adequate.

First, the nutrient content of effluent after secondary treatment may be so great that stimulation of rapid eutrophication continues.

Second, in many areas where major problems exist because of storm water runoff, no amount of additional secondary treatment will avoid the fact that for a significant percentage of each year, such systems are rendered totally ineffective unless storm waters can be retained for subsequent treatment. No amount of advanced treatment, without storage of the storm water runoff will achieve water quality objectives.

Third, conventional treatment is at best an interim solution; such facilities are easily over-taxed, their life expectancy is relatively short, and by themselves do not solve the problem of residual waste; i.e., sludge and other pollutants removed from the effluent.

Alternative waste treatment methods, which requires the return of pollutants to natural cycles, are only new in the sense that they have re-emerged for application. This method is most commonly associated with the Muskegon project although other recent examples include work at Penn State University and Michigan State University and elsewhere.

The Environmental Protection Agency, in Volume II of the 1971 report on "The Cost of Clean Water", states:

They (ground disposal procedures) have the great virtue of recycling the materials so disposed, both by replenishing water tables and by converting and utilizing organic and inorganic waste matter in natural life processes of decay and growth. Their secondary merit is more germane to this discussion. Water reaching watercourses after passage through the filtering and decomposition processes afforded by soil is far purer -- provided that soil loading rates are not exceeded -- than any waste treatment process short of distillation could make them.

<FWPCA § 201> The Committee emphasizes that the policy in Section 201, read with the policy stated in Section 101 <FWPCA § 101>, requires the Administrator to direct his research and development authority under sections 104 <FWPCA § 104> and 105 <FWPCA § 105> to carry out those policies. This statement of policy, coupled with a requirement to consider alternatives as a condition to Federal assistance is intended to overcome the resistance and lethargy present in many planners in the Federal agency, State agencies and in private consulting firms. Planning must move beyond its present orientation to truly integrated and ecologically sound systems. It is expected that the Administrator will give close supervision to this effort in order to develop integrated and comprehensive waste management systems and technology. The Administrator must press the development of technology, and do it within the framework of ecological principles so that sound systems are developed.

Land disposal systems to be effective must be designed and managed so that sewage is applied to the land at control rates, concentrations and proportions of pollutants, so that the character of the land and the plant life are not overtaxed or otherwise degraded. Properly designed land disposal of pollutants must include pretreatment to remove industrial and toxic materials.

The Committee notes that the Secretary of the Army, pursuant to a Resolution of the Committee, has been studying the application of alternative waste treatment mechanisms for five major regions throughout the United States. These include the Merrimac River Basin, the Cleveland-Akron Metropolitan area and the San Francisco Metropolitan Region. Preliminary reports of these studies analyze treatment alternatives from complete land disposal methods, to combinations of land treatment and conventional technology, to conventional technology.

The preliminary reports suggest the possibility of applying land treatment in many areas of the country. The Committee expects the type of planning represented in these preliminary reports will be integrated into the planning activities required under Section 209 <FWPCA § 208>.

As stated in the recent report of the Institute of Ecology: "The cure for this eutrophication is to recycle the organic matter and nutrients within the ecological system: man must find economic ways of returning sewage to the land or of using it productively in aquatic systems."

[**202] SECTION 202 -- FEDERAL SHARE

<FWPCA § 202> The basic Federal share for the construction of sewage treatment facilities increased to 60 percent. A 10 percent Federal bonus is provided when the State agrees to contribute 10 percent toward the cost of each such facility.

The bill would increase the Federal share of waste treatment projects from a maximum of 55 percent to a maximum of 70 percent. This decision was reached after a careful review of the overall costs of community waste treatment, the need to stimulate an accelerated investment in waste treatment works, and the recognition that the Nation's communities cannot generate the funds required under this Act within the period of time set forth without an additional stimulus from the Federal Government.

The Committee believes that the State grant participation in the water pollution control program is essential and should be encouraged. If a State agrees to provide an additional 10 percent grant for each project assisted in that State during the applicable fiscal year, the Federal share for that State increases to 70 percent.

[*26] This legislation will terminate the policy of increased Federal grant assistance to projects in those States which participate by making loans to communities. Only a nonrepayable grant will be an acceptable form of matching. This grant cannot be recovered from the specific users of the systems involved, but rather should be derived from general revenue, collected on the broadest possible State-wide tax base. The Committee takes strong exception to the policy of allowing State loans to communities as a basis for eligibility for the incentives provided in the 1966 Act. This policy is wholly contrary to the purpose and the intent of the Act. Because of this policy decision the Committee considers that fairness requires that all communities assisted with Federal grants during the period 1966-1971 should be

treated as if full State matching grants were available. This provision is discussed later in this report. The fact that this policy decision is a specific reversal of Federal policy, and the fact that this policy decision was not brought to the attention of the Committee by the agency, but rather by affected States, suggests the need for greater coordination and consultation in the development and implementation of regulations to carry out this program. The Committee expects consultation with the Committee to take place prior to final action.

[**203] SEC. 203 -- PLANS, SPECIFICATIONS AND ESTIMATES

The Administrator shall review preliminary plans for any construction project, and is authorized to advance up to 5 percent of the project's cost to assist the community in completing its detailed plans and specifications. Approval of the final plans constitute a contractual obligation of the Federal Government <FWPCA § 203>.

An important aspect of this program for the construction of new waste treatment facilities is the maintenance of close coordination between the Administrator, the States, and the communities. This is particularly important during the development of the preliminary plans for any sewage treatment facility. The provisions of this section are intended to foster such cooperation and thus to accelerate approval, construction, and use of new facilities.

Coordination is particularly important at the time that preliminary plans are developed and considered. This section provides that the Administrator shall act on any preliminary plan as soon as possible, and if he approves them, advance to the applicant up to 5 percent of the reasonable estimated cost of construction to assist the applicant in completing the detailed plans and specifications.

The Committee emphasizes that acceptance and financial assistance for any preliminary plan in no way should serve as a Federal commitment that the final design will be approved and financed. The Committee, however, believes that this early consultation, and the preliminary design consideration should hold the number of final rejections to a minimum. If such a rejection should be made, the Administrator is not authorized to recover the 5 percent advance.

[**204] SECTION 204 -- GRANT CONDITIONS

An applicant for any grant must receive from each industrial user a commitment that the user will repay to the Federal Gov- [*27] ernment that portion of the Federal grant allocable to the user's wastes. Each grant applicant must adopt, by July 1, 1973, user charges to assure that each category of recipients of waste treatment services will pay its share of the cost of operating and maintaining the treatment services provided <FWPCA § 204>.

<FWPCA § 204> In order that Federal grants for the construction of waste treatment works fully implement Federal policy, section 204 sets forth a number of grant conditions to assure that such works are constructed and finally operated and maintained in a manner which will produce the best practicable application of treatment technology.

<FWPCA § 204> Section 204 requires that any applicant for a grant must demonstrate that such works conform to all applicable river basin plans, and other applicable waste treatment management plans. In addition such works must be certified by the State as entitled to priority. The proposed treatment works must also qualify for the required permit under section 402 <FWPCA § 402> of the Act.

<FWPCA § 204> This section also requires that the applicant provide assurance of efficient operation and maintenance throughout the life of the project, and that the applicant further assure the Administrator that each category of user will bear that portion of the project operation and maintenance cost allocable to such category of user.

<FWPCA § 204> In order to review the capacity of the proposed treatment works the bill requires the applicant to describe the relationship of the reserve capacity proposed, the current demand and an estimate of any cost for expected expansion of such works in the alternative to including reserve capacity.

<FWPCA § 204> The contractual obligation which is authorized under Section 203 <FWPCA § 203> is of course,

subject to all applicable conditions and limitations under Title II. Accordingly, the failure to comply with conditions either precedent or subsequent, can be viewed as breaches of the contractual obligation and provide the Administrator with a right to rescind such obligation.

<FWPCA § 204> Further, the contractual obligation authorized under Section 203 <FWPCA § 203> must be understood in the context of Section 205 <FWPCA § 205>. Considering these two Sections together, it should be clear that a contractual obligation in a fiscal year based upon funds to be available in a future fiscal year (under the scheme of Section 205) <FWPCA § 205>, limits in the initial obligation to making funds available in the fiscal year in which the obligation would have been made.

<FWPCA § 204> Sufficient reserve capacity for municipal waste treatment plants is necessary to provide for (1) overloads that are expected to occur for short periods of time due to daily or seasonal fluctuating demands on the system (other than major storm water overflow), and (2) planned increases in load due to additional population, industrial growth, and other similar factors. Reserves for accommodation of short-term fluctuation must be provided for in the basic plant design. Reserves for long-term increases in load are to be determined on the basis of comparison of the cost of immediately providing such reserves as a part of the works to be funded versus the anticipated cost of providing expanded capacity in the future and immediately prior to when such capacity will be required. It will often be more economical to design the plant from the very beginning to accommodate planned future [*28] loads rather than enlarging the plant or building additional works in the future. Such economy could be due to the constantly increasing cost of construction, quantity savings available for one large project rather than two or more additional projects and the higher cumulative cost for equipment and labor when separate projects are undertaken. There are situations, however, when such other factors as financing unused capacity, deterioration, and giving up of anticipated technological improvements will exceed the benefits to be derived from having long-term reserve capacity constructed in the original plant. Therefore, the Administrator is given the authority in the Act to weigh the comparable costs in providing reserve capacity either immediately or at some future point in time.

<FWPCA § 204> Among the significant changes that the Committee recommends in the treatment works construction program is a requirement that each grant applicant shall, as a precondition to grant approval, have in place or agree to impose a system of user charges on the various classes and categories of users who will utilize the treatment works. The committee believes that the user charges will have several important and beneficial results toward the success of the program.

<FWPCA § 204> Each system of user charges imposed pursuant to the requirements of the bill must be designed in such a way as to generate sufficient revenues to operate and maintain the treatment works to which it applies. The committee intends that the concept of "maintenance" will be interpreted to include the costs of replacing components of the treatment works at the end of their useful life, so that the useful life of each facility itself will be protected. The committee bill anticipates that the agencies responsible for constructing and operating treatment works will, through the imposition of user charges, become financially self-sufficient with respect to the operation and maintenance (including replacement as defined) of treatment works constructed with assistance pursuant to the Act.

<FWPCA § 204> Although the committee is aware of the many different legal and financial circumstances that characterize state and local governments and agencies throughout the country, the bill directs the Administrator to promulgate guidelines for the establishment and imposition of user charge systems as a guide to grant applicants for waste treatment works grants. These guidelines should take into account the diversity of legal and financial factors that exist from jurisdiction to jurisdiction, and each applicant should be permitted reasonable flexibility in the design of a system of user charges that meets the unique requirements of his own jurisdiction. As a general rule, the volume and character of each discharge into a publicly owned system should form the basis of determining the rate at which each user should be required to pay.

The committee devoted a great deal of attention to the difficult issue posed by the discharge of industrial pollutants into publicly owned treatment systems. There is much to be said for encouraging industrial use of public facilities. Each

industrial discharge into a public system is one less outfall that must be monitored, and in many cases the economies of scale that characterize public treatment works would permit a net capital saving to the economy as a whole, assuming that the alternative to industrial use of public facilities is the on-site treatment by industry of its own wastes.

[*29] The bill would deal with industrial pollutants in this way: each industrial user of a public system would pay a charge that would include not only that share of operating and maintenance costs allocable to such user but which would also be sufficient to recover that portion of the Federal share of the capital cost of the facility allocable to such user <FWPCA § 204>. That portion of the Federal share of the capital cost allocable to each industrial user would be returned to the federal treasury.

<FWPCA § 204> The committee believes that this approach to the issue of industrial use of public facilities appeared to the committee to be the most reasonable and equitable one that can be devised. Any scheme that did not provide for full recovery of the Federal share of capital costs allocable to industrial users would clearly constitute a Federal subsidy of private industry and, more particularly, of those industries that were so situated as to make use of public facilities and industries producing wastes that are compatible with public treatment systems. Any other approach would discriminate unfairly against those industries which, for whatever reason, were unable to utilize public systems.

<FWPCA § 204> It may be that the Congress will, at some future time, determine that some form of Federal financial assistance to industry in meeting pollution control costs -- whether through tax relief, loans, or grants -- is appropriate. The committee does not prejudge the propriety or need for such assistance. But the committee does conclude that subsidy of private industry through the waste treatment works grant program would be haphazard and inappropriate.

<FWPCA § 204> Discretion is left to the Administrator and to state and local authorities as to the structure of each individual system of user charges. A difficult problem associated with industrial discharges is the calculation of the rate of assessing such charges. Industrial wastes vary considerably in their volume and character. The bill authorizes the Administrator to establish guidelines in the development of industrial user charge rates, which will at the minimum, consider factors such as strength, volume, and delivery flow characteristics of such waste.

<FWPCA § 204> The recovery of the Federal share of capital costs allocable to industry will presumably occur over a rather protracted period of time. Factors that might be taken into account in determining the rate of "pay-back" by industrial users should include the term during which any debt incurred for the non-Federal share of the capital cost will be retired and the term during which each industrial user is expected to make use of the facility. Also, a particular industry should repay that portion of the Federal grant that reflects its percentage use of the plant's total capacity, which should include any firm commitment of increased use of the facility by that industry. The committee does not believe it would be wise to require that existing industry's capital share be computed on that industry's share of the wastes actually treated when the facility initiates operation. The committee affirmatively concluded that capital costs recovered from industry should not include an interest component.

<FWPCA § 204> It may prove to be the case in certain instances that individual industrial operations will conclude that it will be more economical to treat their own wastes than to discharge into a public system. If and where such instances arise, it is logical to conclude that a net saving to [*30] the taxpayer and to the consumer will result. It is certainly not the intent of the committee to discourage industrial use of public systems. It is the judgment of the committee that the industrial "pay-back" requirement will not discourage such use in most cases. It is clear that the environmental costs should be borne by those who place demands on the environment. User charges carry out this principle.

[**205] SECTION 205 -- ALLOCATION

<FWPCA § 205> All allocations to the States under section 205 are to be made on the basis of population. Reallocation of any sums not obligated shall go on a priority basis to States qualifying for 70 percent Federal grants. In

fiscal 1972 and 1973 up to \$200,000,000 each year may be allotted to projects using advanced waste treatment on a regional scale.

This section provides that sums appropriated or authorized to be obligated for the construction of treatment works under Title II, will be allocated among the States on the basis of population alone. Funds allocated to a State and not utilized by the end of fiscal year for which authorized because of a lack of projects certified by the State as entitled to priority, would be reallocated with preference going to States which contribute, by grant, not less than 10 percent of the costs of treatment works in such State.

In addition to the general allocation and reallocation mechanisms, the Committee believes that special provisions should be included to assure full and timely funding for advance regional metropolitan treatment projects. Accordingly, subsection (d) authorizes the Administrator to provide up to \$200 million in each of the first two fiscal years (1972 and 1973) to projects utilizing advanced waste treatment methods for the treatment of wastes on a regional scale for areas with especially severe water pollution control problems. This subsection provides that these funds are to be available unless the amount available for reallocation from the previous fiscal year exceeds \$200 million.

One project which requires such additional assistance is the \$360 million improvement project for the District of Columbia's waste treatment plant at Blue Plains, which serves the Nation's Capital and large portions of nearby Maryland and Virginia. This project, which includes advanced waste treatment, is now proceeding under an enforcement conference deadline of the end of 1974. All jurisdictions involved are fully committed to contribute full local and State shares as needed.

The Committee strongly believes that the Blue Plains project should not be delayed. While it will not provide a total, long-range solution to the water pollution problems of the Washington area, it is the essential first step in cleaning up the Potomac River. At the 70 per cent Federal-aid level authorized in this bill, the Blue Plains project will require almost \$97 million in Federal aid in fiscal 1972 and over \$77 million in fiscal 1973, the years of its greatest obligation needs. These funding requirements far exceed the amounts from a population-based allocation formula which would be available to the participating States. The Administrator has assured the Committee that if suitable discretionary authority is provided, the full Federal share of the Blue Plains project will be made available to keep this project on schedule.

[*31] The Committee expects this and other similar advance waste treatment projects to be funded on a priority basis. The Administration should report on funding deficiencies within one year after enactment.

<FWPCA § 206> The bill, as reported, contains language in Section 205 to permit those States which want to proceed more rapidly to construct facilities in advance of allocations from funds available for subsequent fiscal years. Experience with the Federal-aid Highway Program clearly shows that there are always States which are ready and willing to move faster than the annual program will allow. If those States and their local subdivisions are willing to "borrow" against future allocations, this legislation will permit them to seek approval by the Administrator of projects for which the Federal share will not be made available until a later date. Projects approved for construction can only be approved if the Administrator is satisfied that the plans and specifications are such that the project would be approved if Federal funds were available. The provision for advance construction together with the provision of contract authority will add greatly to the flexibility of States in moving their programs forward and in meeting the priority for elimination of pollution. Because of the magnitude of the construction task and the limited funds which will be available to States under the authorizations provided for in this Title, some States will have to mobilize the allocation of Federal support funds for two or more years in order to meet their most pressing and most expensive treatment works. The advance construction authority and the obligational authority will enable them to do so.

[**206] SEC. 206 -- REIMBURSEMENT

<FWPCA § 206> All projects initiated after June 30, 1966, shall be eligible for a retroactive grant raising the

Federal share on those projects to at least 50 percent. The money must be spent to retire a project's indebtedness or to finance the local share of a new project. \$2,000,000,000 is authorized to meet the post-1966 reimbursement. \$400,000,000 is also authorized to reimburse 1956-66 projects to a 30 percent Federal grant level.

<FWPCA § 206> Section 206 provides for reimbursement to states, municipalities, intermunicipal agencies, or interstate agencies for projects constructed by them for which the full Federal contribution to which they were entitled was not received.

<FWPCA § 206> The Committee determined that it is equitable, reasonable, and consistent with congressional intent that the Federal Government provide sufficient and timely reimbursement of funds to States and localities which have prefinanced a portion of the Federal share of the eligible cost of construction of waste treatment facilities.

<FWPCA § 206> Section 8(c) of the Federal Water Pollution Control Act, as amended (by the Clean Water Restoration Act of 1966), served as an incentive to 29 States to accelerate the initiation of municipal water pollution control projects ahead of the availability of Federal appropriations. States and local municipalities proceeded to commit their own fiscal resources to pay a portion of the Federal share of the cost of construction on the premise that "allotments for any fiscal year ending prior to July 1, 1971, shall also be available for payments in reimbursement of State or local funds used for such project prior to July 1, 1971, to the extent that assistance could have been provided under this section if such project had been approved pursuant to this section and adequate funds had been available."

However, because adequate funds were not available prior to the end of fiscal year 1971, the reimbursable balance outstanding as of July 1, 1971 totaled \$1.63 billion, representing 1,305 projects in 29 States. Many of these projects would not have been undertaken had not the States proceeded with the clear understanding that Federal reimbursement would eventually be forthcoming.

<FWPCA § 206> Section 8(c) of the Act specifically states that a finding by the Administrator that a project meets the requirements of the Act shall not be construed to constitute a commitment or obligation by the Federal government to reimburse such a project. However, the Committee believes that the Congress has a moral commitment to reimburse States and municipalities for funds they applied to the Federal share of eligible sewage treatment projects.

<FWPCA § 206> The Committee further recognizes that funds committed to advance the Federal share are now urgently needed by the States and municipalities to finance their share of new projects which are essential to implementing the purposes of this Act. For these reasons it is the policy of this Committee to provide full reimbursement for all projects constructed without full assistance.

<FWPCA § 206> The Committee was anxious to establish a formula by which it would be possible to "make whole" those who responded to the national need and to congressional urging to accelerate their local effort to clean up the Nation's waterways, but had not received as much money under the Federal grant program as they could have utilized to build facilities that qualified for a Federal grant. In particular many large cities failed to receive full Federal contributions of 30 percent because of individual project limitations (\$250,000 per project during the period 1956 through 1961 and \$600,000 through 1966) and because of inadequate appropriations for the construction grant program. The Committee was informed, for example, that a group of the Nation's largest cities serving approximately 47 1/2 million people received Federal contributions totaling about \$92.5 million for the period 1956 through 1969, whereas 30 percent of the investment made by those cities totals almost \$475 million. Thus, instead of receiving the full 30 percent, the group of cities received less than 6 percent. Many of these cities have exhausted or very nearly exhausted their own capacity to raise funds for water treatment facilities as a result of their early efforts. Thus, the reimbursement provision would enable them either to redeem outstanding indebtedness incurred for water treatment facilities or to use the funds to which they are entitled under section 206 to finance the local share of projects to be constructed in the future under the program.

<FWPCA § 206> A project initiated between 1956 and 1966 will not be eligible for reimbursement under this subsection unless it was approved by the State water pollution control agency at or before the time construction was initiated. Furthermore, it will not be eligible unless it was also approved at or before such time by the Secretary of Health, Education and Welfare, if the project was submitted to him for approval. [*33] If the project was not submitted for approval, it will not be eligible unless the Administrator determines that it was designed and constructed in accordance with the requirements of the Act, and regulations thereunder, in effect at the time that construction was initiated. The burden of establishing such compliance is on the applicant. Payments on account of any project which meets the requirements of this subsection may not exceed the difference between the amount of any Federal assistance already received for such project, and 30% of the reasonable costs of construction.

<FWPCA § 206> Under the 1966 Act, applicants were eligible for Federal contributions greater than 30 percent depending upon actions taken by the individual states in accordance with the provisions spelled out in the Act. In part because of the failure of Congress to appropriate adequate funds, many states did not create complementary financial assistance programs to qualify for the increased Federal share authorized by the 1966 Act.

<FWPCA § 206> The Committee concluded that the municipalities in such states should not be penalized by state inaction.

<FWPCA § 206> Thus, the bill authorizes projects constructed between July 1, 1966, and the enactment of this bill to receive a retroactive contribution that will provide Federal financing on all such projects up to the sum that the community would have received if it had received an initial 50 percent grant. Although the Federal share could have been as high as 55% under the 1966 Act, the Committee believes that the 50% figure was more appropriate.

<FWPCA § 206> Any project initiated after June 30, 1966, and eligible for any level of Federal assistance under the existing Act, shall, apart from any other consideration, be eligible for retroactive Federal assistance equal to not less than 50% of the project cost.

<FWPCA § 206> The 50 percent retroactive payment does not alter the right of some communities to receive a retroactive payment of 55 percent if that project fully qualified for a 55 percent grant prior to enactment of this Act.

<FWPCA § 206> Under the recommended language, each applying agency will be required to demonstrate to the Administrator that the projects for which reimbursement funds are being sought would have been eligible for Federal contributions and were approved by the appropriate State water pollution control agency.

The bill authorizes \$2.0 billion for projects to be reimbursed under subsection (a), which applies to the period between 1966 and enactment of the bill <FWPCA § 206>, and \$400 million for projects reimbursed under subsection (b), which applies to the period 1956-66. There was conflicting data on the estimated total entitlement for subsection (b) projects and, therefore, the Committee decided to call for a study by the Administrator to determine whether more than \$400 million would be required and to report on other aspects of the reimbursement program.

<FWPCA § 206> The Committee also recommends that, to the extent that the funds made available for subsection (b) are inadequate to cover the total entitlement, funds shall be allocated to each eligible agency on the basis of a ration determined by the relationship of the available funds to the total of all entitlements under the subsection. It should be noted, however, that it is the Committee's view and intention that [*34] the full amount found to be required for both subsection (a) and subsection (b) entitlement should be authorized and appropriated.

<FWPCA § 206> The principle underlying the Committee's recommendation on reimbursement is that the bill should remove any past discrimination against those States, municipalities, or intermunicipal and interstate agencies that did not receive full Federal contributions. It is the view of the Committee that reimbursement funds made available under this provision should be disbursed under a pattern whereby the funds continue to be held by the Federal Government until a reasonable time before they are required for the two purposes for which they may be used under the language of the bill.

[**207] SECTION 207 -- GRANT AUTHORIZATION

This section authorizes \$2,000,000,000 for fiscal year 1972 toward the Federal share of the construction costs of publicly owned sewage treatment facilities. EPA is further authorized to incur obligations, in the form of grant contracts, of \$3,000,000,000 in fiscal 1973, \$4,000,000,000 in fiscal 1974, and \$5,000,000,000 in fiscal 1975 toward the construction of sewage treatment facilities.

Up to 5 percent of the fiscal 1972, 1973, and 1974 funds may be spent to carry out Section 209.

This section provides an authorization of \$14 billion for four years for grants to communities for construction of treatment works. The authorizations made available in the form of obligations through contract authority (discussed below). Except in fiscal year 1972 when \$2 billion would be made available (an amount already appropriated by the Committees on Appropriations). There would be available \$3 billion for fiscal year 1973. \$4 billion for fiscal year 1974, and \$5 billion for fiscal year 1975.

The \$9 billion amounts authorized through fiscal year 1974 is based on an estimated 70 percent of the cost of the \$12.6 billion backlog estimated by the Environmental Protection Agency. The Environmental Protection Agency estimate is based on the estimate of needs to provide secondary treatment for all the Nation's sewerage communities as well as some additional tertiary treatment where a need has been identified.

The Committee figure reflects the fact that (a) the Environmental Protection Agency calculations only project a demand for Federal funds for three years; (b) the Environmental Protection Agency calculations do not include any treatment works for the Nation's non-sewered urban population; (c) the Environmental Protection Agency calculations do not provide for any investment in the problem of storm and sanitary sewer overflow, which is an essential element to the water pollution control programs in a number of cities; (d) the Environmental Protection Agency calculations apparently do not anticipate joint municipal and industrial waste treatment facilities; and (e) the Environmental Protection Agency calculations did not consider the magnitude of the effort projected by this legislation.

The Committee asked the National League of Cities -- United States Conference of Mayors to survey their members' cities to determine the need for Federal construction grant assistance. That study, which has been made a part of the hearing record, identified and estimated a [*35] waste treatment backlog of \$33-\$37 billion. While the funds authorized by this Act will not provide full Federal assistance to retire a backlog of that magnitude there should be adequate funds for communities to make major inroads into their construction backlog and begin to achieve the kind of a program anticipated by this legislation.

Additionally, this legislation encourages joint municipal-industrial waste treatment facilities construction. As discussed in another section user charges are required as a condition of the Federal grant. Industries using municipal systems will be required to repay that portion of their cost of project attributed to the Federal payment. But communities and industries will be able to benefit from economies of scale, from savings in operation and maintenance costs and, in some instances, from benefits to be derived from the compatibility of wastes to be treated.

The language of subsection (b) of Section 207 provides that funds authorized for fiscal years 1973, 1974, and 1975, shall be available for obligation by contract upon their allocation to the States. The importance of assured Federal financial support to the achievement of the objectives of this title and to our national purpose of cleaning up polluted waterways cannot be overstated. The task is a massive one in terms of the work to be done and the funds to be expended.

In order to insure a properly phased program, States and local governments can go forward only when there is strong assurance that federal funds will be available when needed. The Congress, through the Committees on Appropriations this year, fully funded authorizations for waste treatment facilities. In order to plan for construction of needed facilities and meet the deadlines of this Act, communities must be able to anticipate with some certainty the level of Federal funding available. This can only be obtained through the process known as "contract authority".

Questions have been raised regarding the ability of State and local government to absorb the \$14 billion which the bill would authorize over four fiscal years. Testimony before the Committee, experience with the existing water pollution programs, and experience with other major Federal-aid construction programs indicate that it will be possible to build up to the levels of activity required to properly utilize the funds which Title II would authorize for waste treatment facilities construction. The time for actual construction of facilities required to treat municipal and continued municipal and industrial wastes extends over four to seven years. The commitment to pay must be made at the time the project is approved with payment to be made over the construction period <FWPCA § 203>.

If Congress places upon State and communities the burden of carrying out this program, it should bind itself to pay the Federal share of the projects costs. The authority for obligation will not bar the Committee on Appropriations from reviewing the manner in which the program is being carried forward.

[**208] SECTION 208 -- DISBURSEMENT

This section is the first sentence of subsection (e) of section 8 of existing law.

[**209] [*36] SECTION 209 -- WASTE TREATMENT MANAGEMENT

<FWPCA § 208> This provision seeks to stimulate waste treatment management on a regional basis. The Administrator shall establish guidelines under which each Governor should designate waste management regions. Such regions should cover all sections of each State. An agency for developing the waste management plan for each region is to be similarly designated by the Governor. If the Governor fails to designate, the chief elected local officials in the area shall designate the agency.

<FWPCA § 208> Within two years of designation, all such agencies must develop waste treatment management plans consistent with Section 201 <FWPCA § 201>. A six-month extension may be granted to individual regions. Such a plan must contain waste treatment construction priorities and information on waste treatment needs over 20 years, and create a regulatory program to implement the purposes of Section 201 <FWPCA § 201>, with controls over industrial discharges and control over the disposal of pollutants onto the land or into subsurface excavation.

<FWPCA § 208> The plan must also, if appropriate and to the extent feasible, provide for controls over pollution related to agriculture, mine-water, construction, and salt water intrusion.

<FWPCA § 208> The Administrator shall help to finance development of these plans, and the Army Corps of Engineers is authorized, upon request of a Governor, to provide technical assistance to any waste management agency in the development of its plans.

States may request the Secretary of the Army to acquire lands for any needed treatment works.

<FWPCA § 208> Once a plan is completed, the Governor shall designate agencies in each region that shall implement the plan, build waste treatment facilities, and assess user charges.

<FWPCA § 208> After July 1, 1974, all grants will go to a designated agency, for projects that conform with the waste management plan.

Perhaps the principal cause of inefficiency and poor performance in the management of waste in the metropolitan regions is the incoherent and uncoordinated planning and management that prevails in many areas of the Nation. Adjacent communities and industries are under no mandate to coordinate land use or water quality planning activities. This results in poor overall performance and the proliferation of many direct and indirect discharge sources into receiving waters. Such diffuse and divergent programs not only intensify pollution problems but they prevent the use of economies of scale, efficiency of treatment methods, and, most importantly, coherent, integrated and comprehensive land use management.

<FWPCA § 208> Consequently, the Committee has included in the bill a mechanism that would establish planning and management capability throughout each State. The mechanism is initiated by the Administrator who would set forth definitive criteria on those interstate and intrastate areas for which regional waste treatment management plans are to be developed. The Governor, or Governors, after consultation with local elected officials, are required to designate regions for the purpose of developing regional waste management plans.

<FWPCA § 208> The agencies designated as planning agencies by the Governor, are entitled at their request to receive from the Administrator financial [*37] and planning assistance in development of plans so that the alternative waste treatment methods may be examined and reviewed and the best one developed for each region. One hundred percent planning grants are available for the first two years and 75 percent grants will be available thereafter. The Governor then submits the plan, along with the designation of an operating agency (or agencies) to carry out such plan, to the Administrator for approval.

A regional planning mechanism will be ineffective if it does not provide an effective means of regulating all sources of pollutants within the region, and if it does not provide an overall management mechanism to assure implementation of any plan developed.

<FWPCA § 208> Section 209 requires that any regional plan developed pursuant to this Act not only establish construction priorities for treatment works and identify alternative waste management strategies, but also establish a regulatory program to implement those waste treatment management requirements, regulate the location, modification and construction of facilities in the region, assure that industrial and commercial wastes discharged into any treatment works meet applicable pretreatment requirements, provide for control of residual waste generated in the area, and provide for control over the disposal of pollutants on land or in subsurface excavation in the region.

<FWPCA § 208> These specific regulatory functions are in addition to requirements to establish processes to identify and control agriculturally related pollution, mine related pollution, construction related pollution and salt water intrusion. To the extent required to provide uniformity of regulation, a Governor may determine that these processes and procedures should be imposed by the State rather than at the regional level. Should a Governor make this determination and notify the Administrator, the Committee expects that any regional plan submitted for approval would include reference to these controls.

<FWPCA § 208> The magnitude of the task and the policy considerations implicit in that task make it essential that the planning operations be conducted under the supervision of regional agencies composed of elected officials. The regulatory functions proposed in this plan will require legislation in many regions. Ordinances and regulations will be required. Metropolitan area plans, land use requirements, and zoning decisions will all be affected by this plan.

<FWPCA § 208> The independent functioning of units of government in areas of population concentration without regard to the pollution related requirements of other areas of the same region will not be possible. Uncontrolled growth and expansion and competition among units of government will be reduced if effective environmental controls are to be imposed.

<FWPCA § 208> The Committee is cognizant of the impact planning and implementation of these requirements will have but the Committee also recognizes that in those areas of urban and industrial concentration any program which falls short of that defined by this section will be inadequate to protect an environment which is healthful to the people who live within those regions.

<FWPCA § 208> The Committee is concerned that adequate planning and preparation is not being given the location, construction, and operation of waste treatment facilities. There has been a tendency in the past to allow a proliferation of investment in waste treatment facilities because [*38] cause local governmental jurisdictions have been unable or unwilling to work together to jointly construct and operate facilities.

<FWPCA § 208> While local jurisdictional differences may be the reason for potential waste inherent in such

individual construction operation activities, the Congress cannot permit such practices to continue.

The new legislation provides a Federal contribution to the cost of construction of waste treatment facilities of up to 70 percent. In many instances the local community's share of a project's cost will be as little as 20 percent. This investment of State and Federal funds where made must be strictly regulated to assure that the best facilities are constructed in terms of effluent quality, public investment, population to be served and potential for best operation and maintenance.

<FWPCA § 208> The Committee does not have any preconceptions as to what the "best" is. The Committee is convinced that waste treatment methods which will most greatly reduce any discharges into the waterways while avoiding poisoning the land is preferable. However, the Committee also recognizes that many communities cannot apply available alternatives, such as land disposal, because of geographical or physical factors and must rely on improved conventional treatment methods.

<FWPCA § 208> The Committee believes that a positive instruction to work on a regional basis is essential to effective implementation of the goals and the deadlines established in this law. This may mean individual waste treatment plants for entire metropolitan areas and it may mean separate, independent treatment plants for each jurisdiction within the area. This decision is to be made as a part of the regional plan to be developed by the local elected officials to be approved by the State and by the Environmental Protection Agency. If this procedure is followed, the chances of success of the program are greatly enhanced.

<FWPCA § 208> Section 202 <FWPCA § 202> malcer [makes?] funds available for this program in the form of obligations. Five percent of the funds authorized in each fiscal year shall be available for the purposes of this section.

<FWPCA § 208> Without the guarantee of funding implicit in this provision the needed planning will not get under way immediately and approved plans to meet the requirements of Section 201 <FWPCA § 201> will not be completed. Failure to have an approved plan will result in ineligibility for construction grants funds after fiscal year 1974.

<FWPCA § 208> Following the approval by the Administrator of a plan and a designated operating agency or agencies, all waste management in the described region must conform to the plan and any grants under this Act shall serve to carry out the plan. In order to assure effective plan implementation, the Governor is required to designate an operating agency (or agencies) within such region. To the extent that existing agencies (county, city, independent district or other) have the authority required and agree to carry out the plan, the Committee would expect them to be designated. Use of existing construction agencies will accelerate application of these regional plans.

It is possible that many of the entities that would be created under Section 209 would be without condemnation authority outside their specific geographical jurisdiction. Since any land-based disposal system will require major land acquisition, the bill provides that where necessary, and approved by the Administrator, the condemnation authority of the Secretary of the Army (acting through the Chief of Engineers) is available to secure land, providing that such land serves [*39] an essential function in the treatment process or is necessary for the disposal of residual waste.

One of the most significant aspects of this year's hearings on the pending legislation was the information presented on the degree to which nonpoint sources contribute to water pollution. Agricultural runoff, animal wastes, soil erosion, fertilizers, pesticides and other farm chemicals that are a part of runoff, construction runoff and siltation from mines and acid mine drainage are major contributors to the Nation's water pollution problem. Little has been done to control this major source of pollution.

It has become clearly established that the waters of the Nation cannot be restored and their quality maintained unless the very complex and difficult problem of nonpoint sources is addressed.

It has been estimated that 700 times as much suspended solids reach the Nation's waters from surface runoff in any period as reach the waters in the discharge of sewage. The volume of such solids from land runoff has been estimated at

4 billion tons each year.

A considerable portion of this runoff is in the form of particles of soil, which may not have any direct impact on the chemical or biological integrity of the waters. Yet the effect of this sediment on water quality can be severe, damaging the esthetic value of lakes and smothering fish spawning grounds.

Land runoff also carries into the Nation's waters animal wastes and fertilizers, which may contribute to eutrophication, as well as pesticide residues and other chemicals that may damage fish or other aquatic organisms.

<FWPCA § 208> For the first time, the Committee bill provides a mechanism to establish a program to control the principal nonpoint sources of water pollutants. Section 304 <FWPCA § 304> requires that the Administrator develop, in conjunction with other appropriate Federal agencies, information regarding nonpoint sources and their control. Following the publication of this information, each State or regional planning agency under Section 209 is required to develop plans for nonpoint sources pollution control after public hearings, and submit that plan, by a time certain, to the Administrator. Specific nonpoint sources must be included within such plan and in each instance the State must identify and each of the specific sources within each category.

<FWPCA § 208> The Committee recognizes, at the outset, that many nonpoint sources of pollution are beyond present technology of control. However, there are many programs that can be applied to each of the categories of nonpoint sources and the Committee expects that these controls will be applied as soon as possible.

For instance, in the construction of buildings, parking lots and highways, it is possible to install catch basins or holding ponds for the purposes of settling out silt or sediment before runoff water reaches either storm sewers or the natural drainage system. Also, methods of excavation and storage of fill are available to reduce the susceptibility to erosion.

<FWPCA § 208> Another perplexing nonpoint source problem is pollution from mining -- strip, surface, and underground. The control of pollution originating from such activities involves regulating mining practices, including where practicable, total elimination of the practice in certain areas because of soil and geologic factors.

[*40] <FWPCA § 208> The bill requires identification of nonpoint source activities and development of methods and procedures to control them to the extent possible. The bill also directs the Administrator to perform and support additional research to control these very serious problems.

<FWPCA § 208> The present Federal water pollution control program does not consider degradation of water caused by reduction in fresh water flows which produce the intrusion of salt or brackish waters into estuaries and rivers. Salt water intrusion, no less than point sources of discharge, alters significantly the character of the water and the life system it supports. Salt water intrusion often devastates the commercial shellfish industry. It must be accounted for and controlled in any pollution control program. It makes no sense to control salts associated with industrial or municipal waste point sources and allow, at the same time, similar effects to enter the fresh water as a result of intrusion of salt water. Fresh water flows can be reduced from any of a number of causes. The bill requires identification of those causes and establishment of methods to control them so as to minimize the impact of salt water intrusion.

[**210] SECTION 210 -- DEFINITIONS

For the purposes of Title II a number of terms are defined. In addition to the term "construction" <FWPCA § 212>, present in existing law, definitions are added for "treatment works" <FWPCA § 212>, "replacement costs" <FWPCA § 212>, "industrial user" <FWPCA § 502>, and "grant".

<FWPCA § 212> The term "treatment works" includes any device or system for storing, treating, recycling, or reclaiming municipal sewage or industrial wastes of a liquid nature. And in addition to the elements included in existing law, "treatment works" would include acquisition of land to be used in the treatment process (as in land disposal by

spray irrigation) or for the ultimate disposal of sludge and other residues.

<FWPCA § 212> The term "treatment works" also includes any pipelines that would convey sewage sludge a reasonable distance from a treatment plant to any publicly owned facility constructed for further treatment of those wastes by methods such as composting, or for ultimate disposal on land.

<FWPCA § 212> Included within the definition of "treatment works" is "any land that will be an integral part of the treatment process or is used for ultimate disposal of residues resulting from such treatment." By lands which are an integral part of the treatment process, it is intended to refer only to those lands which physically interact with the wastewater or pollutants removed therefrom. Lands which are merely a site for the placement of buildings or equipment are not considered to be a part of the treatment process, and are not included in the cost of construction.

<FWPCA § 212> "Another change in the definition of 'treatment works' recommended by the Committee would include facilities for preventing or abating storm water overflows among those eligible for construction grants. Although the existing definition of 'treatment works' could be interpreted to include such facilities, the EPA and its predecessor agencies have made no construction grants for such facilities." The Administrator has suggested that the cost of constructing facilities to eliminate the combined sewer problem that exists in numerous cities throughout the Nation would be prohibitive. The Committee believes, [*41] however, that it would be unwise to exclude from the construction grant program facilities that in some instances could achieve water quality objectives on a far more economical and efficient basis than through the construction of treatment facilities. For example, the Committee heard testimony to the effect that the water treatment facilities required for Chicago may be reduced by 50 percent or more if a method is developed for storing storm overflows that occur perhaps once or twice a month. Under such circumstances, it is obviously wasteful to construct water treatment facilities adequate to handle peak loads that occur so infrequently, so long as there is a satisfactory alternative method of achieving the same result at a far lower cost. The Committee was also advised of another situation in which, because of the city's topographical and rainfall characteristics, partial separation of combined sewers would prove to be the most efficient method of meeting water quality standard in that community.

<FWPCA § 212> It is important, especially in the case of very large systems, that such facilities are eligible to be included in construction grants, so that the long term planning, design and engineering can be undertaken with the understanding that a proposal based on the inclusion of facilities for handling storm overflow will be fairly and reasonably considered by the Administrator.

<FWPCA § 212> The term "replacement costs" which is defined to mean "those expenditures for obtaining and installing equipment, accessories, or appurtenances during the useful life of the treatment works necessary to maintain the capacity and performance for which such works are designed and constructed", is intended to include more than the usual recurring expenses of operation and maintenance. It is intended to include costs of equipment which might be replaced only once or infrequently during the life of the works. It is not intended to include total structural replacement of the building or works itself.

<FWPCA § 502> Section 210(d) defines "industrial user" of a waste treatment system. The method chosen is to include all industries classified under "division D-Manufacturing" of the Standard Industrial Classification prepared by the Bureau of the Budget in 1967. In addition, the Administrator of the Environmental Protection Agency is given the authority to include other classes of significant waste producers, as he deems appropriate, through the publication of regulations. This definition permits the Administrator to designate as an "industrial user" any commercial or business enterprise which as a class or as a single installation discharges significant wastes to a municipal system, under the intent of the Act.

The term "grant" means a grant or grant contract, as the context of the bill requires.

TITLE III -- STANDARDS AND ENFORCEMENT

[**301] SECTION 301 -- EFFLUENT LIMITATIONS

<FWPCA § 301> The discharge of any pollutant is illegal, except as permitted under this section or sections 302 <FWPCA § 302>, 306 <FWPCA § 306>, 307 <FWPCA § 307>, or 402 <FWPCA § 402>.

By January 1, 1976, all point sources of pollution, except publicly owned treatment works, must have in use the best practicable [*42] treatment technology or meet any Section 307 <FWPCA § 307> pretreatment standard, if the effluent is sent through a publicly owned treatment works.

<FWPCA § 301> All publicly owned facilities must utilize secondary treatment by that same date, or within four years of the date that construction was started on any grant project begun prior to June 30, 1974.

<FWPCA § 301> By 1981, point sources, other than publicly owned treatment works, must eliminate the discharge of pollutants. An exception to this requirement shall be granted if the owner presents information to the Administrator showing that compliance cannot be attained at a reasonable cost. If that occurs, the discharge limitation for that source shall be the best available technology. The Section 307 <FWPCA § 307> pretreatment standard covers any industrial discharge into publicly owned treatment works.

<FWPCA § 301> Any publicly owned treatment works that is approved after June 30, 1974, must comply with Section 201 <FWPCA § 201>.

<FWPCA § 301> This section requires that all effluent limitations must be reviewed at least every five years.

<FWPCA § 301> A prohibition is declared on the discharge of any radiological, chemical, or biological warfare material, or any high-level radio-active waste.

<FWPCA § 301> This section establishes a two-phase program for application of effluent limitations, the first based on technological practicability and the second on technological availability. While the Administrator is not precluded from applying effluent controls based on water quality (where that relationship can be or has been established), the failure to establish a direct relationship will not be an excuse for delay. Phase I, to be implemented by 1976, will require application of the best practicable technology to all industrial pollution sources. Communities will be required to have approved secondary treatment construction programs by the end of Fiscal Year 1974. Phase II, to be implemented by 1981, will require, where no-discharge cannot be attained, application of the best available technology for communities and industries.

<FWPCA § 301> This section clearly establishes that the discharge of pollutants is unlawful. Unlike its predecessor program which permitted the discharge of certain amounts of pollutants under the conditions described above, this legislation would clearly establish that no one has the right to pollute -- that pollution continues because of technological limits, not because of any inherent right to use the nation's waterways for the purpose of disposing of wastes.

<FWPCA § 301> The program proposed by this Section will be implemented through permits issued in Section 402 <FWPCA § 402>. The Administrator will have the capability and the mandate to press technology and economics to achieve those levels of effluent reduction which he believes to be practicable in the first instance and attainable in the second. Because the program established by this section requires increasingly tougher controls on industry; because industry will be required every five years to re-evaluate its control efforts and to apply the best technology then available; because industries will have to show every five years that no-discharge is not attainable; because of the site peculiarities of certain plants; or because of the economics of joint municipal-industrial treatment, many industrial polluters will choose to discharge their [*43] wastes into municipal systems. However, industry should not expect that the use of municipal systems will avoid the cost or requirements of this Act.

<FWPCA § 301> Much of the time the Committee devoted to this Act centered on an effort to resolve the existing

water quality program and the separate pollution permit program developing under the 1899 Refuse Act.

<FWPCA § 301> The Committee believes that the no-discharge declaration in Section 13 of the 1899 Refuse Act is useful as an enforcement tool. Therefore, this section declares the discharge of pollutants unlawful. The Committee believes it is important to clarify this point: No one has the right to pollute.

<FWPCA § 301> But the Committee recognizes the impracticality of any effort to halt all pollution immediately. Therefore, this section provides an exception if the discharge meets the requirements of this section, Section 402 <FWPCA § 402>, and others listed in the bill.

<FWPCA § 301> Under a subsequent section of this bill pretreatment standards are required. Any industrial wastes which are not compatible with or will not be treated by, conventional municipal waste treatment must be pretreated by the industry choosing to use the municipal treatment works.

<FWPCA § 301> Publicly-owned treatment systems must meet the secondary treatment requirement of Phase I and, in Phase II, the mandate requires the best practicable treatment, including recycling and reclamation of wastes confined and contained disposal as set forth in section 201 <FWPCA § 201>.

Additionally, regional waste treatment management plans developed under section 209 <FWPCA § 208> will require the consideration of the best alternatives available to eliminate the discharge of any waste generated in the region and will require overall waste treatment management plans for all areas of the country in order to assure that the requirements for section 201 <FWPCA § 201> are carried out, that all alternative control strategies are explored, and that the best available alternative for a particular region is utilized.

Pretreatment requirements, user charges, requirements on municipalities and regional waste management programs should protect against abuse of public systems and public investment by industry.

Additionally, any industry using a publicly owned treatment facility which will not meet the requirements of section 201 <FWPCA § 201> by 1981 shall be required to meet the requirement of no-discharge or, if that is not attainable, the best available technology as determined by the Administrator. This requirement should prove to be an effective incentive to cooperative efforts between communities and industries to develop and implement section 209 <FWPCA § 208> plans.

<FWPCA § 301> The committee emphasizes that this section is not to be construed as reducing any water quality or effluent requirements imposed as a result of the Federal Water Pollution Control Act prior to enactment, or State law. In fact, the Administrator is under a specific obligation to require that level of effluent control which is needed to implement existing water quality standards without regard to the limits of practicability.

<FWPCA § 301> The application of Phase I technology to industrial point sources is based upon the control technologies for those sources and to publicly owned sewage treatment works is based upon secondary treatment. It is not based upon ambient water quality considerations. In requiring [*44] best practicable controls to be applied and achieved by 1976, the Committee is incorporating the general requirements established under the 1965 Act for interstate waters. The Committee recognized, however, that the water quality standards established under the 1965 Act may require higher levels of control that can be achieved if only the "best practicable" is applied. It is not the intent of the Committee to in any way restrict the Administrator, or the States from applying higher levels of control than best practicable where necessary to achieve standards established pursuant to the 1965 Act or, in the case of intrastate waters, under similar legislation in any of the States.

<FWPCA § 301> In addition, the Committee recognizes that many criteria included in standards applicable to both interstate and intrastate waters are not adequate. For example, only seven States have established criteria for phosphorous for their interstate streams. Since initial approval of standards the need to control phosphate discharges to prevent eutrophication has been established.

<FWPCA § 301> Section 301(b)(1)(C) provides adequate authority to apply new information to existing water quality requirements and upgrade effluent limits accordingly.

<FWPCA § 301> In other words, wherever the Administrator determines that application of the best practicable treatment requirements of Phase I will not provide for implementation of existing water quality standards for interstate or interstate streams, he must tighten the requirements against a source of discharge or group of sources.

<FWPCA § 301> However, in these cases the Administrator must act quickly. The deadlines established to achieve effluent limitations are strict. Time will be required to achieve any effluent limitations established. Sources of pollution, whether they are cities or industries, must know what the requirements are in order to proceed on schedule with their construction program. In the case of cities, this should not be difficult, because of the existing requirement that a minimum of secondary treatment is maintained for Phase I. Many communities have begun to construct these needed facilities. Others are in the process. Of course others must act quickly to begin construction if they are to meet the deadlines required in the legislation.

<FWPCA § 301> Unfortunately, as noted above, little has been done to identify for industry the exact meaning, on a plant-by-plant basis, of the equivalent of secondary treatment. Through the permit program established under section 402 <FWPCA § 402>, with the help of those States which have effective programs, the Administrator and the States can and should, by mid-1973, be able to apply specific effluent limitations for each industrial source. Application of limitation by that date would provide thirty months for achievement of required levels of reduction.

While some may suggest that this is too short a period, many industries have known that they are expected to achieve the equivalent of secondary treatment and should be in the process of applying control techniques.

In some cases, where industries have done nothing, their capacity to comply may be stretched to the limit. The Committee recognizes this, and suggests that to provide opportunity for further delay would only reward polluters who ignored the requirements of the 1965 Act and penalize those discharge sources who moved quickly to comply.

[*45] <FWPCA § 301> Phase II of the Act provides five years to achieve no-discharge or to apply the best available technology. By 1976 each discharge source should have applied for, and received, a permit setting forth the effluent limitations that will be required in this phase. The Administrator should have reviewed the information generated by the early phases of the water quality inventory in order to determine those waterways which can be significantly improved by the application of alternative strategies as required by section 302 <FWPCA § 302>. Those industries and communities located in the areas subject to section 302 <FWPCA § 302> will have the information they need to determine how to proceed to meet more restrictive requirements. Once the requirements to be met by 1981 are defined, the planning and construction required to meet the 1981 deadline can proceed as expected.

<FWPCA § 301> Many industries will be able to anticipate the requirements in Phase II. In those instances where corporate managers know that their best course is to connect with municipal waste treatment systems, plans can be made during Phase I to assure that pretreatment standards will be met and to assure that the community will be in compliance with the requirements of section 201 <FWPCA § 201>.

In other cases, corporate managers will know that closed cycle systems, recycling, and waste reclamation techniques are available to their plants and can be applied as required in Phase II. In those instances, plans can be made during Phase I and industries can begin immediately to work toward that objective by 1981.

<FWPCA § 301> In still other cases, there will be uncertainty as to the economic impact of closed cycle systems necessary to meet the no-discharge standard or, in fact, as to the availability of such technology. In those cases the corporate managers will be required to make a showing to the Administrator of the facts on which they base a determination that the no-discharge requirement of the Act cannot be attained at a reasonable cost. If the Administrator finds, on the basis of the showing made, and, after evaluating the achievements of similar facilities, that no-discharge cannot be achieved at the plant in question, the Administrator is required to establish an effluent limitation based on the

best technology available (as defined in Sec. 304 <FWPCA § 304>) to that plant.

<FWPCA § 301> "The burden of coming forward to show that a no-discharge standard cannot be applied to a specific plant rests on the owner or operator of the pollution source. The Administrator's role is to confirm the facts presented. But the Administrator is not bound by the limits of the information presented by the polluter.

<FWPCA § 301> This is important for two reasons. In some instances, polluters may attempt to show that a no-discharge standard cannot be attained by making an incomplete or inaccurate presentation of facts. The Administrator, on the other hand, using his own resources, would be able to contradict such a presentation. In other cases, a polluter may lack the resources to determine what technology is available to him. This polluter may conclude, wrongly, that a no-discharge standard cannot be achieved. In this case, the Administrator, calling on resources available to him, can provide guidance to the polluter.

<FWPCA § 301> In the latter instance, the Committee expects the Administrator to provide industrial pollution sources with technical information as required by section 304 <FWPCA § 304> on control technology available to various kinds of plants. This information may well serve as the basis for those pol- [*46] luters with insufficient resources to determine what they may be able to do or not do.

<FWPCA § 301> The Committee has established a procedure to continue the program beyond 1981. Under this provision, the procedures and requirements of Phase II would be repeated every five years for those sources of pollution which could not have to achieve the no-discharge requirement in Phase I (if required to meet water quality standards) or Phase II, or in an earlier five-year phase.

[**302] SECTION 302 -- WATER QUALITY RELATED EFFLUENT LIMITATIONS

<FWPCA § 302> If any Section 301 <FWPCA § 301> effluent limit to be attained by 1981 interferes with the achievement of a water quality assuring protection of public water supplies, the propagation of fish, and swimming, a more restrictive effluent standard must be set to provide such protection. But prior to setting a more restrictive standard, a hearing shall be held to determine the balance between the economic and social costs of such new limitation and the social and economic benefits. If the relationship is unreasonable, the limitation shall be adjusted.

<FWPCA § 302> Section 302 is intended to implement the interim goal (identified in Section 101 <FWPCA § 101> of the Act) of achieving by 1981, wherever attainable, a standard of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water, and also assures that public water supplies, agricultural and industrial uses will be protected.

<FWPCA § 302> To the extent that water quality standards can be used to generate firm data on necessary effluent limitations this enforcement tool should be available. The limitations necessary to achieve a given level of water quality in one reach of a waterway may require more control of effluents than that attainable through application of the best available technology. Where that is desirable to implement the policies of the Act, and feasible, section 302 provides the authority to impose controls based on water quality.

<FWPCA § 302> Where application of the best available control technology (as required for all industrial point sources in "phase II" under section 301(b)(2) <FWPCA § 301>) or best practicable treatment (as required for all publicly owned treatment works under section 301(b)(2) <FWPCA § 301> will not attain that standard of water quality, more stringent effluent limitations or alternative control strategies can be imposed. Such limitations would be established for the affected point sources at a level which can reasonably be expected to contribute to the attainment or maintenance of such a standard of water quality.

<FWPCA § 302> The concept of "alternative effluent control strategies" is necessary to account for two difficulties in simply setting more stringent effluent limitations than those attainable with the best available control technology, may include elimination of any discharge of pollutants. Compliance with such a limitation, even if demonstrably not

sufficient to reach a given water quality standard, could not be improved upon with a more stringent effluent limitation. Secondly, further reduction of the level of effluent entering the affected waters may not be possible through control technology, yet essential to water quality. Alternative effluent control strategies, such as the transportation of effluents to [*47] other less affected waters or the control of in-plant processes would have to be developed.

<FWPCA § 302> Prior to establishing a water quality related effluent limitation under the authority of this section, the State or the Administrator would be required to give public notice and hold a hearing. At the hearing, evidence would be taken on the relationship of the economic and social costs of achieving the proposed limitation (including possible economic or social dislocation in affected communities), to the economic and social benefits to be obtained. The communities affected for the purpose of assessing dislocation, are only those from which the point source or sources in question draws significant numbers of employees. The hearing would also provide a base for determining whether proposed effluent limitations can be implemented with available technology or alternative strategies.

<FWPCA § 302> To obtain an adjustment of a proposed effluent limitation under this section, the owner or operator of an affected point source must demonstrate at the hearing that there is no reasonable relationship between the economic and social costs and the benefits to be obtained. The owner or operator of such a source must carry this burden regardless of whether technology or alternative strategies are available to implement the proposed limitation.

<FWPCA § 302> The Committee has included language in this section requiring that in the determination of effluent limitations based on water quality, consideration must be given, on a case-by-case basis, to a balancing of the economic and social costs against the social and economic benefits sought to be obtained.

<FWPCA § 302> The Committee believes that there must be a reasonable relationship between costs and benefits if there is to be an effective and workable program. The projected economic costs of establishing the limitations and strategies contemplated under this section include increased overhead, possible job losses, projected production cutbacks, and loss of revenue to the community. Full weight shall be given to such readily quantifiable factors.

<FWPCA § 302> Balancing economic costs against what may be considered intangible social benefits is difficult. Some economic benefits can be calculated with reasonable accuracy. These include savings of the costs to public health of polluted waters, the costs of lowered property values along polluted lakes and rivers, the cost to the community of lower tax revenues and an unattractive business climate, the loss of future industry and jobs because of severe pollution problems, as well as the expansion of recreational opportunities available to the general public, including lower-income persons who rely heavily on public recreation facilities; transportation and other savings through the provision of recreation sites in closer proximity to densely populated areas; and the impact of not imposing proposed effluent controls and strategies on neighboring communities. Benefits more difficult to calculate such as long-term improvement of water quality and reduction of estuarine and ocean pollution should not be ignored.

<FWPCA § 302> Another factor to be taken into consideration is the availability of Federal, State or local adjustment assistance to individuals affected by any economic or social dislocation from pollution abatement. Any balancing of costs and benefits should take into account the nature of the receiving waters and the feasibility of their use [*48] for recreational purposes, and the recreational and aesthetic values of maintaining a balanced population of shellfish, fish and wildlife in the particular waterway.

<FWPCA § 302> The Committee recognizes that no mathematical balance can be achieved in considering relative costs and benefits nor would any precise formula be desirable, but in each case the Administrator or the State will be able to determine whether there is any reasonable connection at all between the costs which a particular effluent limitation would impose and any benefits (including the attainment of natural water quality) which might be derived.

<FWPCA § 302> In all cases, the proposed effluent limitations shall not operate to delay the application of any effluent limitation established under section 301 <FWPCA § 301>. Section 302 is intended to furnish a supplemental basis for improving water quality, and not to be a cause for delay in executing the requirements of Section 301, or for

requiring any less stringent effluent limitations.

[**303] SECTION 303 -- AQUACULTURE

<FWPCA § 318> After public hearings, the Administrator may allow discharges of pollutants for approved agriculture projects.

<FWPCA § 318> The language of Section 303(a) is intended to refer to localized portions of waterways where predetermined and controlled quantities of specified pollutants may be added in order to increase the growth of particular fish, shellfish or other species for a designed beneficial use by man. Such projects as the building of artificial reefs by use of inert bulk solids, the use of some nutrients for the growth of selected algae to be fed to fishes in a confined or controlled area, the promotion of growth of certain aquatic plants such as water hyacinth for subsequent use as animal fodder, are examples of projects which are intended to be permitted on an experimental basis under Federal or State supervision and approval. It is intended that no pollutants be permitted to migrate from the aquaculture project to cause pollution elsewhere. The addition of heat to a waterbody, for example, is not intended to be permitted, unless it is shown in advance, to the satisfaction of Federal or State environmental protection authorities, that such pollutant will be released in a controlled and confined way for the purpose of growing aquatic organisms which will be harvested and used beneficially, according to preapproved plans. In no event is a project to be approved which disturbs the integrity of waters outside the approved project area.

<FWPCA § 318> In Section 303(b) the Administrator is required to establish procedures and guidelines which would (1) assure confinement of the pollutant additions to the aquaculture area; (2) determine whether the inert bulk solids, the use of some nutrients for the growth of selected additions will produce the desired benefits, that the desired organisms will be harvested or otherwise used; and minimum control and management requirements.

[**304] SECTION 304 -- INFORMATION AND GUIDELINES

<FWPCA § 304> Within one year after enactment, the Administrator shall publish criteria on water quality. The criteria must reflect the latest [*49] scientific information on the factors needed for a restoration of the natural chemical, physical, and biological integrity of all navigable waters, the factors needed for propagation of fish, shellfish, and wildlife, and the factors needed to allow swimming, together with the effects that individual pollutants have on fish, plant life, beaches, as well as the movement of particular pollutants through the life chain.

<FWPCA § 304> Within a year of enactment, the Administrator shall also publish effluent-limitation guidelines that identify the degree of effluent reduction that is attainable through the use of the best practicable technology currently available. Similar guidelines are also required for assessing the degree of effluent reduction attained in the use of the best available technology.

<FWPCA § 304> These guidelines shall also specify all factors to take into consideration in assessing both the best practicable technology and best available technology. These include the age of equipment and facilities, the process employed, and the cost of achieving such a reduction.

<FWPCA § 304> The Administrator shall also issue information on processes, procedures, and operating methods that will result in the elimination or reduction of pollution discharges in order to meet the Section 306 <FWPCA § 306> standards, plus information on alternative waste treatment systems to be considered in Section 201 <FWPCA § 201>.

<FWPCA § 304> The Administrator shall also publish guidelines and procedures on the impact on water quality of hydrographic modification work, as well as guidelines and procedures identifying and controlling pollution from various types of nonpoint sources: agriculture, mining activities, and construction work.

<FWPCA § 304> The Administrator shall also publish guidelines on pretreatment standards for pollutants that are not susceptible to treatment by publicly owned treatment works.

<FWPCA § 304> Guidelines for the test procedures that will analyze pollutants must be published by the Administrator, in addition to guidelines for the monitoring, reporting, and enforcement requirements to be included in any State program delegated under Section 402 <FWPCA § 402>.

<FWPCA § 304> An authorization for this section is set at \$100,000,000 for fiscal year 1973, and each year thereafter.

<FWPCA § 304> The development of information which describes the relationship of pollutants to water quality is essential for carrying out the objective of the Act. This information, known as criteria, is required under Section 304(a) to be developed and published by the Administrator and issued to the states and public. Criteria to be developed in this section should draw upon the best scientific knowledge on the subject, including information, if any, from the National Academy of Sciences, the U.S. Geological Survey in the Department of Interior, scholarly literature, academic experts, and other sources.

<FWPCA § 304> Criteria establish the effects of pollutants on health or welfare, including the effects of pollutants on receiving water ecosystems and man, and identify the natural chemical, physical and biological integrity of the Nation's waters. The concentration and dispersal of pollutants and their by-products through biological, physical and chemical [*50] processes and any related changes in the diversity, productivity, or stability of receiving water ecosystems would be part of the information provided.

The "natural . . . integrity" of the waters may be determined partially by consultation of historical records on species composition, partially from ecological studies of the area or comparable habitats; partially from modeling studies which make estimations of the balanced natural ecosystem based on the information available. It is expected that the ultimate mechanism for the restoration and maintenance of the natural integrity of the waters will be the complete cessation of discharge of pollutants into waters. Prevention of the migration of pollutants into groundwaters or to estuaries and oceans should be considered in publishing such information.

<FWPCA § 304> It is the Committee's intention that pursuant to subsection 301(b)(1)(A) <FWPCA § 301>, and Section 304(b) the Administrator will interpret the term "best practicable" when applied to various categories of industries as a basis for specifying clear and precise effluent limitations to be implemented by January 1, 1976. In defining best practicable for any given industrial category, the Committee expects the Administrator to take a number of factors into account. These factors should include the age of the plants, their size and the unit processes involved and the cost of applying such controls. In effect, for any industrial category, the Committee expects the Administrator to define a range of discharge levels, above a certain base level applicable to all plants within that category. In applying effluent limitations to any individual plant, the factors cited above should be applied to that specific plant. In no case, however, should any plant be allowed to discharge more pollutants per unit of production than is defined by that base level.

<FWPCA § 304> The Administrator should establish the range of best practicable levels based upon the average of the best existing performance by plants of various sizes, ages, and unit processes within each industrial category. It is acknowledged that in those industrial categories where present practices are uniformly inadequate, the Administrator may determine best practicable to require higher levels of control than any currently in place if he determines the technology to achieve those higher levels can be practicably applied.

<FWPCA § 304> Best practicable can be assumed to substitute for the present terminology "equivalent of secondary treatment for industry but this interpretation should not be construed as limiting the authority of the Administrator.

<FWPCA § 304> Under the Phase II the Committee intends that effluent limitations be based upon application of best available technology as defined by the Administrator. In making the determination of "best available" the Committee expects the Administrator to apply the same principles involved in making the determination of best

practicable as outlined above except that rather than the range of levels established in reference to the average of the best performers in an industrial category the range should at a minimum be referenced to the best performer in any industrial category.

<FWPCA § 304> The distinction between best practicable and best available is intended to reflect the Committee's intent press toward increasingly higher levels of control, applied over five year periods. Through research and development of new processes, modifications, replacement [*51] of obsolete plants and processes, and other improvements in technology, the Committee anticipates that it should be possible, taking into account the cost of controls, to achieve, by 1981 levels of control approaching 95-99 percent reduction of pollutants discharged in most cases and complete recycling in the remainder.

<FWPCA § 304> In establishing the levels of best practicable and best available technology for point sources the Administrator should not ignore discharges resulting from point sources other than pipelines or similar conduits. For instance, the Administrator must give proper attention to the control of dredge spoil disposal and fill operations especially in light of the Committee's action in striking the limitation contained in the Rivers and Harbors Act of 1970, thereby making diked disposal areas, previously available only in the Great Lakes, available nationally.

<FWPCA § 304> There are many other forms of periodic, though frequent, discharges of pollutants into the water through point sources such as barges, vessels, feedlots, trucks and other conveyances. The Administrator is required to publish information on the best practicable and best available control technology including alternative disposal methods for these sources. The Administrator should also issue regulations regarding discharges resulting from the deposit of residues from various manufacturing processes to assure control of periodic, as well as continuous discharges into the navigable waters can be developed and implemented.

<FWPCA § 304> Water quality is intended to refer to the biological, chemical and physical parameters of aquatic ecosystems, and is intended to include reference to key species, natural temperature and current flow patterns, and other characteristics which help describe ecosystem integrity.

<FWPCA § 304> Criteria would also include a description of the factors related to rates of eutrophication and the rates of accumulation of organic and inorganic sediment.

<FWPCA § 304> The criteria will allow the translation of the narrative of the general objective of the Act to specific and precise parameters.

<FWPCA § 304> Subsection (b) of this section requires the Administrator, within one year after enactment, to publish guidelines for setting effluent limitations reflecting the mandate of section 301 <FWPCA § 301>, which will be imposed as conditions of permits issued under section 402 <FWPCA § 402>. These guidelines would identify what constituted the "best practicable control technology currently available" and the "best available control measures and practices," and the degree of effluent reduction attainable through the application of each. Thus, these guidelines would define the effluent limitations required by the first and second phases of the program established under section 301 <FWPCA § 301>. In addition, the Administrator would identify control measures and practices available to eliminate the discharge of pollutants from any category of point sources, to allow the full implementation of the objectives of the Act.

<FWPCA § 304> As used in this bill the concept "best available control technology" is intended to mean that the Administrator should examine the degree of effluent control that has been or can be achieved through the application of technology which is available or normally can be made available. This does not mean that the technology must be in actual [*52] routine use somewhere. It does mean that the technology must be available at a cost and at a time which the Administrator determines to be reasonable, and that the technology has been adequately demonstrated if not routinely applied.

<FWPCA § 304> In order to reflect the change in emphasis of the Federal Water Pollution Control Act, the

Administrator is required to issue information to the States and to the public on the processes, procedures, and methods to control pollution related to non-point sources. Included within this category are activities such as agriculture, forestry, mining, construction, disposal of material in wells, and salt water intrusion. While many of these activities are the subject, directly or indirectly, of Federal programs established for other purposes, the bill for the first time directs attention to these activities in the context of integrated water pollution control. It should be clear that the Committee does not intend that the Administrator should develop information on these subjects completely independently. Rather, to the extent possible, he should utilize the existing knowledge and existing programs of other Federal agencies and incorporate the fruits of such programs into the information published under this section.

<FWPCA § 304> In order to further carry out this intent, the Administrator is instructed to enter into agreements with the Secretary of Agriculture, the Secretary of the Army, and the Secretary of the Interior, to fully incorporate programs conducted in their Departments in carrying out the objectives of the Act. The Administrator is authorized to transfer the funds provided under this section to those other Secretaries, in order to further enhance those programs for water pollution control.

<FWPCA § 304> The Committee recognizes that the Department of Agriculture, for instance, has authority to give technical and financial assistance, and carry out research to promote sound land use and control pollution by reducing erosion and runoff, providing for the orderly removal of excess water and efficient use of irrigation water, and installation of systems for management, storing, and recycling of animal and poultry wastes and other agricultural related pollutants. A considerable portion of this authority is administered through the REAP (Rural Environmental Assistance Program) which the Committee strongly endorses and hopes can be, to the extent feasible, integrated into the water pollution control program.

<FWPCA § 304> Sediment, often associated with agricultural activities, is by volume our major pollutant, not only from the degrading effect of the sediment, but because it also transports other pollutants. Fertilizer and pesticide runoff are also major agricultural non-point sources. Poor forestry practices, including indiscriminate clear cutting, may also generate substantial soil erosion problems. The full utilization of agricultural conservation techniques will be an important part of control of non-point sources called for under section 209 <FWPCA § 208>.

<FWPCA § 304> Another phenomena associated with construction is, of course, the effect of completed projects upon the hydrologic cycle. One of the common problems associated with pollution control is the dramatic increase in storm runoff when the earth's surface is made impermeable. Thus highways, building, and parking lots all contribute substantially to the accelerated runoff of rainwater into natural water systems. The greater volumes and greater velocity produced cause high rates of erosion and siltation. In addition, highway runoff often [*53] includes oil, rubber particles, lead, asbestos and other elements or additives deposited on highways as a result of vehicular traffic. Recent studies have shown that this source of pollutants is growing in its magnitude and deserves prompt attention by the Administrator. The magnitude and deserves prompt attention by the Administrator.

<FWPCA § 304> The Committee would hope, therefore, that information will be published making clear the responsibilities of those making surfaces impermeable, especially large expanses such as shopping centers, major highways and large buildings, to provide as part of the construction either catch basins or other methods to hold the water, at least temporarily, so that during storms peak flows do not run off the land and into the natural water courses.

<FWPCA § 304> Guidelines for disposal of material in deep wells may range from provisions for evaluating geological characteristics of disposal sites to the costs and benefits of alternative methods of disposal. For shallower disposal sites, the main concern is for groundwater contamination. Provisions should be outlined to control leaching of materials from such sites, which include land-fill sites as well as abandoned mines.

<FWPCA § 304> Among the causes of salt water intrusion for which information on methods of control is needed are intrusions caused by withdrawal of subsurface fluids such as petroleum and fresh water. Information must be generated on problems related to from leaching of ores and waste piles, and acid from the dissolving of acid salts

formed on exposed spoil surfaces or added to groundwater percolating through spoil or waste dumps.

<FWPCA § 304> Procedures to control soil erosion must be described, including methods to inhibit loss of nutrients and organic matter from exposed soils to the stream. Procedures for rapid revegetation of mined surfaces should be described, including possibilities of use of sewage sludge as a soil conditioner. Methods for killing the bacteria that produce or release acids in mines should be evaluated. Methods of ore extraction and waste ore disposal could be described which will prevent loss of toxic and other pollutants to waterways. Access roads should be built to avoid soil erosion and minimize disturbance of the regional hydrology. Information should be published for the non-point source pollution associated with hydraulic mining, under-sea mineral exploitation, and off-shore oil exploration.

<FWPCA § 304> Soil erosion from construction sites can be controlled by temporary terracing, retention ponds, and other means. Information should be provided, in addition, on ways to insure that the facility so constructed has adequate ways of preventing soil erosion and confining runoff.

<FWPCA § 304> Water pollution effects from mining activities include sediment from sand and gravel pit mining, from surface mine overburden, from surface excavation procedures, and from dredge and hydraulic mining operations; additions of toxic and other chemical materials from this source have occurred both in coastal regions, such as Florida, and in mid-continent areas, such as Oklahoma and Texas. Increased salinity may result from withdrawal of water from the headwaters of a river, and especially from repeated cycles of irrigation. The return of heated water to water bodies, increasing the evaporation rate, has accelerated the concentration of salts. Situations such as these and others must be considered in the guidelines.

[*54] <FWPCA § 304> Another factor for consideration is the temporary or permanent obstruction or diversion of fresh water flows in the construction of a dam or other facility, which may also cause salt water intrusion from estuaries.

<FWPCA § 304> Section 304 also requires the Administrator to publish information on processes, procedures, or operating methods resulting in the elimination or reduction of the discharge of pollutants. This information is necessary to implement the standards of performance for new sources under section 306 <FWPCA § 306>, and alternative waste treatment management techniques and systems available to implement section 201 <FWPCA § 201>. He is also required to publish guidelines for establishing pre-treatment standards for pollutants discharged into publicly owned treatment works, and guidelines establishing procedures and test protocols for the analysis of pollutants in permit applications. It should be noted that this authority is in addition to the authority of the Administrator to establish pre-treatment standards directly under Section 307 <FWPCA § 307>. The authority contained in Section 304 is intended to generate information to support municipalities and States in establishing pre-treatment requirements necessary for effective and efficient use of treatment works. The Committee acknowledges that pre-treatment standards established under Section 307 <FWPCA § 307> would generally be national in scope and addressed to the most significant pre-treatment problem. There will remain many pre-treatment requirements and conditions which must be incorporated into all treatment works systems by municipalities to govern the influx of industrial waste and the Administrator is instructed to provide assistance in the form of guidelines. In the case of each of these requirements, information or guidelines would be updated annually.

<FWPCA § 304> In addition, the Administrator is required to issue information on methods, procedures and processes useful in restoring and enhancing the quality of publicly owned fresh water lakes.

<FWPCA § 304> Within 30 days after enactment, section 304(h) requires the Administrator to promulgate guidelines establishing the minimum requirements for the acquisition of information from owners and operators of point sources applying for permits under section 402 <FWPCA § 402>. It is intended that the program under Section 402 <FWPCA § 402> will, even after incorporation of any or all States, be uniform in as many procedural requirements as possible. This is especially true of application forms and the actual permit forms. This should not, however, be construed to limit States from establishing any requirements necessary in addition to the basic forms and procedures.

Within 90 days after enactment, the Administrator must promulgate guidelines, in accordance with section 402 <FWPCA § 402>, establishing the minimum elements of a State permit program submitted to him for approval.

<FWPCA § 304> It is acknowledged that the time allotted for publication of information under this section, is short. The Committee expects however, that the Refuse Act experience should enable the Administrator to comply. In addition, of course, the Committee desires to make it possible for State programs to qualify for participation in the permit program under section 402 <FWPCA § 402> as soon as possible after the date of enactment. This will only be possible if general guidelines establishing the minimum requirements for such program are published at an early date.

[**305] [*55] SECTION 305 -- WATER QUALITY INVENTORY

<FWPCA § 305> The Administrator is required to send to Congress by July 1, 1973, a report that describes the specific quality of all U.S. waters as of January 1, 1973. The report must identify and inventory all point sources of discharge together with an analysis of each discharge.

<FWPCA § 305> Those navigable waters that presently allow swimming and provide protection for the propagation of fish must be identified in the report. Those waters that will meet such a level of water quality by 1976 or 1981 must be identified, as well as those waters that will meet that level of quality at some later date.

<FWPCA § 305> Each State must submit by July 1, 1974, and annually thereafter, a report that describes the existing water quality on all its navigable waters. The report must correlate the existing water quality with the water quality described in the criteria published under Section 304(a) <FWPCA § 304>, plus an analysis of the extent to which all navigable waters in the State provide for the protection of fish and allow swimming.

<FWPCA § 305> Each State is further required to submit an estimate on the economic and social costs that will be necessary to achieve that high quality water, an analysis of the economic and social benefits of achieving that water quality, and an estimate of the date it will be achieved. The report should also describe the nature and extent of nonpoint sources of pollution, programs to control such sources, and the cost of such programs.

Much of the information on which the present water quality program is based is inadequate and incomplete. The fact that a clearly defined relationship between effluent discharge and water quality has not been established is evidence of that information gap. The fact that mixing zones have been permitted so is indication of the information gap. The fact that assimilative capacity has been the essential factor in the existing control program is evidence of the information gap. The fact that many industrial pollutants continue to be discharged in ignorance of their effect on the water environment is evidence of the information gap.

The Committee recognizes that there are technical limitations on what can be done to achieve elimination of the discharge of pollutants. But more importantly, the Committee is concerned that program administrators and enforcement officers do not know what those technical limits are. It can be generally stated that inadequate information exists on the degree to which pollution could be eliminated now and what the cost of that effort would be.

More significantly, the Committee is concerned that program administrators and enforcement officers do not have adequate information on the range of controls that could be applied to types of plants within various industries. For example, after six years under the Water Quality Act, pursuant to which a guideline was established that each industry must meet "a minimum of secondary treatment or its equivalent." Six years later, program administrators cannot identify the equivalent of secondary treatment for each industry. This information gap within the State and Federal agencies administering this program is a cause for major national concern.

[*56] Some of this uncertainty should be resolved by Section 304, which requires the establishment of regulations setting forth guidelines on effluent limitations which can be achieved from application of various control techniques and which requires the establishment of Federal water quality criteria so that a uniform (to the extent appropriate) the basis can be set for determining the levels of pollution at which various effects occur.

Sections 104 <FWPCA § 104> and 105 <FWPCA § 105> (if properly implemented) should provide more specific information on which to base Section 304 <FWPCA § 304> regulations. If the Administrator focuses attention on those areas in which information is inadequate, there should be a considerably greater ability to make sound judgments under Phase II than there will be with Phase I.

<FWPCA § 305> This Section requires a national water quality inventory. The Administrator is directed to inventory the quality of the Nation's waters and identify the extent to which existing quality meets, exceeds, or falls short of the goals established in this Act.

<FWPCA § 305> The Committee wants to know what waters are in their natural state and where they are located. The Committee wants to know what waters are of the quality which will assure protection and propagation of fish, shellfish, and wildlife. And the Committee wants to know what waters are safe for swimming. The Committee wants information on those waters which fail to meet high quality requirements, where they are located, and the reason for failure. The Committee expects a full and complete inventory of municipal and industrial waste discharged including a quantitative and qualitative evaluation of the pollutants those sources. The statutory mandate as well as the necessary backup authority for information acquisition in Section 308 <FWPCA § 308> and subpoena power under 501 <FWPCA § 501> is available exists to carry out the functions of this Section.

<FWPCA § 305> With the above data accumulated, the Administrator and the States can and should be able to begin to identify where the goals of this Act will not be met, what levels of control will be required to meet them, and what the overall economic and environmental impact of the elimination of pollutants will be. By the 94th Congress, the Committee on Public Works can carefully review this program to identify those additional steps which must be taken to assure the achievement of the goal of this Act by 1985.

This Committee is under no illusions as to the ease of the task set out. But, to those who express concern as to the magnitude of the cost of what this legislation proposes, the Committee would call attention to information supplied by the Administration which indicates that a 95-99 percent reduction of industrial and municipal pollutants can be achieved through contemporary, admittedly obsolete and expensive technology such as that represented in the tertiary system installed at Lake Tahoe, in the next decade for a capital cost of approximately \$35.3 billion.

According to these estimates, operating and maintenance costs for that investment over a 20-25 year time frame would be \$83.5 billion. A national investment of \$3.5 billion a year for the elimination of 95-99 percent of pollutants must be considered in relation to the Committee's anticipation that at least \$12 billion will be required to provide secondary treatment to the Nation's sewered population in Phase I of [*57] the program. And, no one is under any illusion that that \$12 billion investment in municipal waste treatment plants will implement existing water quality standards in many areas of the Nation, much less meet the goals of this Act.

The Committee recognizes that these figures may be conservative. It also notes that the Administration has estimated that the cost of removal of the final 1 percent of pollutants may exceed the cost of removing the initial 99 percent of pollutants. The Administration's estimate of the capital cost to achieve 100 percent pollution control for point sources is \$94.5 billion.

The Committee also recognizes that even with application of a no-discharge standard where attainable at reasonable cost and, where not attainable, the best available technology, no better than 99 percent pollutant removal can be expected by 1981.

<FWPCA § 305> What the Congress must decide in 1976-1977, on the basis of the information provided by the inventory and evaluation required by this Section, is whether or not the additional levels of control required to completely eliminate pollutants are technically available, and if so, whether the ecological and water quality benefits to be derived worth the economic and social cost to be incurred. Having this information shortly after mid-decade will provide the Congress with a unique opportunity to make a mid-course correction in moving toward a 1985 goal. This

policy evaluation is essential in order to balance the long-term program costs projected by this legislation with the Nation's priorities as they will be established in 1976-1977 and beyond.

[**306] SECTION 306 -- NATIONAL STANDARDS OF PERFORMANCE

<FWPCA § 306> New sources of pollution in at least twenty-eight specified industries must be constructed to meet a standard that reflects the greatest degree of effluent reduction that can be achieved by use of the latest available control technology. If it is practicable, this could be a standard that permits no discharge of pollution. EPA must promulgate the best available technology standard for each industry. That technology must be followed by each plant which by modification becomes subject to the new source standards, unless the economic and social costs of achieving such a standard far exceeds the social and economic benefits. If that occurs, a lesser standard will be promulgated.

<FWPCA § 306> The Administrator may distinguish among classes and sizes of new sources. He may also delegate this authority to individual States if they develop procedures for setting and enforcing such standards.

<FWPCA § 306> The Committee believes that this section, which is designed to assure that new stationary sources of water pollution are designed, built, equipped, and operated to minimize the discharge of pollutants, is among the most significant in the legislation.

<FWPCA § 306> Under the provisions of the bill, the standards of performance for new source of water pollution would require the achievement of the greatest degree of pollution reduction that can be achieved through the application of the best available effluent control technology and ultimately, to eliminate space. Such a maximum use of available means [*58] to prevent and control water pollution is essential to the prevention of new pollution problems and the eventual attainment of the goal of no-discharge.

<FWPCA § 306> It should be noted that the Committee considered use of the phrase "latest available control technology," but rejected it in favor of "best available control technology."

<FWPCA § 306> The Committee agreed that, although used in the Clean Air Act, the term "latest" may not (as intended) be interpreted as the best. The Committee has substituted the word "best" in this bill to make clear its intention.

<FWPCA § 306> As used in this section, the term "available control technology" is intended to direct the Administrator to examine the degree of effluent reduction that has been or can be achieved through the application of technology which is available or normally can be made available. This does not mean that the technology must be in actual, routine use somewhere. Rather, it means that the technology must be available at a cost and at a time which the Administrator determines to be reasonable.

<FWPCA § 306> The implicit consideration of economic factors in determining whether technology is "available" should not affect the usefulness of this section. The overriding purpose of this section would be to prevent new water pollution problems, and toward that end, maximum feasible control of new sources, at the time of their construction, is considered by the Committee to be the most effective and, in the long run, the least expensive approach to pollution control.

<FWPCA § 306> This section requires that the Administrator, within 90 days following enactment of this Act, publish a list of categories of industrial groups for which he will establish standards of performance. The Committee has specified 28 industrial groups for which, at a minimum, the Administrator must establish national standards of performance:

pulp and paper mills;

paperboard, builders, paper and board mills;

meat product and rendering processing;
dairy product processing;
grain mills;
canned and preserved fruits and vegetables processing;
canned and preserved seafood processing;
sugar processing;
textile mills;
cement manufacturing;
feedlots;
electroplating;
organic chemicals manufacturing;
inorganic chemicals manufacturing;
plastic and synthetic materials manufacturing;
soap and detergent manufacturing;
fertilizer manufacturing;
petroleum refining;
iron and steel manufacturing;
nonferrous metals manufacturing;
cotton ginning;
phosphate manufacturing;
[*59] steam electric powerplants;
ferroalloy manufacturing;
leather tanning and finishing;
glass and asbestos manufacturing;
rubber processing; and
timber products processing.

<FWPCA § 306> The Administrator has authority to add to this list when he finds that any other category of new sources falls within the requirement of this section.

<FWPCA § 306> The Committee agreed not to include in its list of new sources nuclear fuels processing plants. The Environmental Protection Agency indicated that the Agency does not have the technical capability to establish controls for such plants at this time. The Committee, however, expects that EPA will develop the capability that is required to implement the purpose of this Act, as well as to carry out the functions delegated to the Agency in Reorganization Plan No. 3. The Bureau of Radiological Health, which was transferred to the Environmental Protection Agency, should have the capacity to determine those levels of control which can be achieved for nuclear fuels processing plants. If they do not, such a capability should be developed and this particular source should be added to the list of new sources as soon as possible.

<FWPCA § 306> Within one year of the publication of the list, or any eventual additions to the list, the Administrator shall publish proposed regulations establishing a standard of performance for each type of industry on the Administrator's list. The section gives interested persons and industries 60 days in which to comment on those proposed regulations.

<FWPCA § 306> By the end of that 60-day period, the Administrator shall promulgate a standard providing for the application of the "best available control technology". If the owner or operator of a modified source can demonstrate to the Administrator that the economic and social costs of implementing such a standard bears "no reasonable relationship" to the social and economic benefits that would be obtained from such standard, the Administrator may adjust the standard as it applies to the source. Implicit in any consideration of social and economic benefits is the national objective of clean water.

<FWPCA § 306> The term "standard of performance" has not previously appeared in the Federal Water Pollution Control Act, although a similar concept and language was written into the Clean Air Act last year.

<FWPCA § 306> The Administrator shall evaluate the level of effluent reduction that can be attained through the application of best available technology. Once he has evaluated what can be accomplished, the Administrator must set the standard at a particular volume of effluent or a particular percentage of effluent reduction. The Committee believes that the greatest public benefit can be achieved when each company in an industrial group is free to make its own, innovative engineering decisions on how to meet that standard. The Administrator should not attempt to dictate the use of specific processes or other methods of control to implement the standard of performance.

<FWPCA § 306> A significant aspect of the entire bill is the emphasis placed on development of a cooperative State-Federal approach toward environmental enhancement. The Committee has added a provision to enable the States to participate in a program for applying new source standards. The Committee language would allow any State to submit to the Administrator a procedure under which the States would apply and enforce standards of performance for new sources for water pollution within that State. If the Administrator considers the procedure to be adequate, he must delegate this responsibility to the State. However the Administrator retains the responsibility for establishing and revising standards of performance. As the States are much closer to the individual problems within their jurisdictions, the Committee believes that such a delegation of Federal authority to the States can lead to the most efficient application of this program.

<FWPCA § 306> For the purposes of this section the Committee has defined a "new source" of pollution to be any facility on which construction or modification begins following the publication of the standard of performance by the Administrator. To further clarify the application of this section, the Committee has defined "modification" to mean any physical change in an existing plant, or its method of operation, that increases the amount of water pollutants discharged by the source. In the case of multi-unit plants, the "modification" applies to the particular unit being modified.

[**307] SECTION 307 -- TOXIC AND PRETREATMENT STANDARDS

<FWPCA § 307> EPA must publish, within 90 days of enactment, a list of pollutants that are determined to be toxic. Six months later EPA must publish proposed effluent limitations, which could be a prohibition of a discharge, for

these pollutants. A hearing will be held within thirty days.

<FWPCA § 307> No later than six months after publication of the proposed limitation, EPA must promulgate that published standard unless, based upon a preponderance of the evidence at the hearings, he finds that a variation from the standard is justified. The new standard would be promulgated. Any standard must provide an ample margin of safety.

<FWPCA § 307> Subsection (b) requires EPA to set national pretreatment standards for the discharge of pollutants into publicly owned treatment works. These standards must cover pollutants that are not susceptible to treatment at the treatment works or which would interfere with operation of a municipal treatment plant.

<FWPCA § 307> The proposed new section 307 would authorize the Administrator to establish effluent standards, which may include a prohibition, applicable to the discharge of toxic water pollutants which the Administrator determines are toxic based on the definition in section 502 <FWPCA § 502>.

<FWPCA § 307> On the basis of information presented to the Committee, it is clear that the definition will encompass a limited number of pollutants. Arsenic, cadmium, mercury, and beryllium as well as certain chlorinated hydrocarbons, have been identified as pollutants which could be subject to effluent standards or prohibitions that would be established under this section. It would be the Administrator's responsibility to determine whether there are additional pollutants which also should be covered under section 307.

[*61] <FWPCA § 307> Under an administrative procedure to regulate and control the discharge of such toxic pollutants, the Administrator would, from time to time designate as toxic those pollutants as indicated by available material evidence. Following designation the Administrator would be required to publish a proposed effluent standard or prohibition of the discharge of such pollutants. The Committee has provided the Administrator with authority to differentiate among categories of sources in establishing requirements under this section.

<FWPCA § 307> This authority, for example, would give the Administrator the latitude to treat a plant that processes cadmium ore differently than he might treat a plant in which cadmium appears as a trace impurity. A similar ability to differentiate exists in the Clean Air Act.

<FWPCA § 307> After public hearings and within six months of the publication of any proposed regulation, the Administrator would be required to promulgate such regulation, unless he found on the basis of a preponderance of the evidence, that a different level of control could be permitted without presenting toxic discharges. Both an initial effluent standard and any modification would be required to provide an ample margin of safety.

<FWPCA § 307> The bill would provide that any standard or prohibition should become effective no later than one year after such promulgation. Because of the hazards posed by toxic substances, the committee considers the need for compliance with promulgated standards for toxic substances to be especially urgent. Language in section 307 (a) (5) is thus intended to convey that one year be an absolute maximum time allowed for compliance with standards promulgated under this section, and that compliance be required as early as possible within this limit.

<FWPCA § 307> Comprehensive water pollution abatement requires that controls should also be extended to any industrial discharge into municipal waste treatment works in order to prevent pollutants from entering such works if they would impair the effectiveness of the waste treatment works or, if they would pass untreated or inadequately treated wastes through the treatment works into the navigable waters. Subsection (b) of section 307 gives the Administrator authority to establish pretreatment standards to control the addition of industrial pollutants to municipal waste treatment systems. It is clear that the Administrator may be unable to establish such standards for all pollutants which require such control. Therefore, the provisions of this section do not relieve municipalities and States from establishing pretreatment standards to control rate, flows, and concentration of industrial discharges into waste treatment works.

<FWPCA § 307> The Administrator would be expected to prohibit the discharge of any industrial pollutants which

adversely affect functions of conventional treatment works. Conversely there may be industrial wastes which stimulate the performance of conventional treatment works or which are consistent with alternative control strategies. The latter should be identified.

<FWPCA § 307> The Committee also expects the Administrator to approve State programs which have adequate pretreatment requirements in order to reduce Federal involvement in this area to an absolute minimum. Guidelines under section 304 <FWPCA § 304> should facilitate this transfer of function.

[**308] [*62] SECTION 308 -- INSPECTION, MONITORING, AND ENTRY

<FWPCA § 308> The owner or operator of any effluent source must install and maintain pollution monitoring equipment. This includes the monitoring of the biological effects of any discharge. EPA has the right of entry to inspect records, monitoring equipment, and the effluent. EPA may delegate this authority to any State setting up its own program. The public shall have access to any records or reports obtained in this manner, except on a showing that the record or reports would reveal a trade secret.

<FWPCA § 308> There are several other objectives which must be considered in establishing criteria for requiring pretreatment. Many of these also may be satisfied by advanced wastewater treatment methods.

<FWPCA § 308> Although industrial wastes vary considerably between industries, it is possible to define generally the requirements for pretreatment of industrial wastes prior to discharge into a municipal wastewater system. These are:

First, to enable a conventional sewage treatment to fulfill its ordinary functions by assuring the waste is treatable and does not overload the oxidation facilities, and there are no toxic substances which will degrade the capacity of the treatment system to function properly;

Second, to minimize eutrophication by removing compounds containing nutrients such as phosphorus and nitrogen from major industrial sources;

Third, to produce a combined municipal and industrial waste which is similar to that of domestic sewage with regard to inorganic compounds such as chlorides and sulfates;

Fourth, to reduce damage to sewer lines due to excessively high or low pH's, substantially high temperatures, or other conditions of industrial wastes that may damage sewers;

Fifth, to minimize the introduction of compounds into wastewaters which are not removed by conventional treatment methods but offer a potential for incorporation in food chains such as chlorinated organics and heavy metals; and

Sixth, to produce a sewage treatment plant effluent that can be used for a selected reuse purpose.

<FWPCA § 308> When establishing requirements for pretreatment, each of these objectives must be evaluated. Particular emphasis should be given to those contaminants which limit recycling or reuse of treated wastewaters.

<FWPCA § 308> A necessary adjunct to the establishment of effective water pollution requirements and the enforcement of such requirements is authority to require information, data, and reports, as well as to establish monitoring requirements. Section 308 establishes authority identical to the authority for such purposes contained in the Clean Air Act Amendments of 1970; except that recognizing such authority is essential to control programs, the Committee removed the element of discretion from the Administration. Through this authority the Administrator can make investigations of buildings, structures, monitoring equipment, or other facilities subject to control requirements established under the Act and authority to enter after presentation of proper [*63] credentials. In addition, the Administrator is authorized to require installation of appropriate monitoring equipment. It should be noted that the

Administrator upon a showing is required to hold information, other than effluent data, proprietary.

<FWPCA § 308> As under the Clean Air Act, the Committee expects the authority to enter will be used judiciously and upon any challenge to entry the Committee expects the Administrator to obtain the necessary warrant.

<FWPCA § 308> It should also be noted that the authority to enter, as under the Clean Air Act, is reserved to the Administrator and his authorized representatives which such representatives must be full time employees of the Environmental Protection Agency. The authority to enter is not extended to contractors with the EPA in pursuit of research and development.

[**309] SECTION 309 -- FEDERAL ENFORCEMENT

<FWPCA § 309> When EPA discovers a violation of any effluent limitation, it must provide notice to the polluter and the State. Unless the State initiates enforcement action within 30 days, EPA shall issue an order requiring compliance or bring a civil suit against the polluter.

<FWPCA § 309> If widespread violations indicate that the State is failing to enforce the limitations in general, EPA shall notify the State. If this State failure continues beyond another thirty days, EPA shall give public notice and assume enforcement over all effluent limitation requirements in that State.

<FWPCA § 309> When EPA finds anyone violating Sections 301 <FWPCA § 301>, 302 <FWPCA § 302>, 306 <FWPCA § 306>, 307 <FWPCA § 307>, 308 <FWPCA § 308>, or 402 <FWPCA § 402>, the agency must either issue an order that requires immediate compliance or bring a civil suit. If this involves Section 308 <FWPCA § 308>, the order will not take effect until the polluter has an opportunity to confer with EPA. The Administrator shall initiate a civil suit for appropriate relief, such as an injunction, against anyone who refuses to comply with any such abatement order.

<FWPCA § 309> Anyone willfully or negligently violating a Section 402 <FWPCA § 402> permit or any of several other specific sections of the bill shall be liable to a fine of up to \$25,000 per day of violation and one year in jail. For a willful or negligent violation of Sections 301 <FWPCA § 301>, 302 <FWPCA § 302>, 306 <FWPCA § 306>, 307 <FWPCA § 307>, or 402 <FWPCA § 402>, the fine shall be not less than \$2,500 per day. The penalty for a second conviction shall be up to \$50,000 per day and two years in jail.

<FWPCA § 309> Anyone who is found to have knowingly made a false statement on any application or report, or who has tampered with a monitoring device, shall be liable to a fine of \$10,000 and six months in jail.

<FWPCA § 309> In any regulatory program involving Federal and State participation is the allocation or division of enforcement responsibilities is difficult. The Committee, of course, has in the record documentation of the poor enforcement performance under the 1965 Act. The Committee concluded that not only were there weaknesses in the procedures established on enforcement, but more importantly, there were weaknesses in the overall design of enforceable requirements.

<FWPCA § 309> In writing the enforcement procedures involving the Federal Government the Committee drew extensively upon the provisions of the Clean Air Act of 1970, and upon the existing enforcement provisions of the Refuse Act of 1899.

[*64] <FWPCA § 309> As in the Clean Air Act, the bill reported from the Committee establishes and makes precise new requirements imposed on persons and subject to enforcement. One purpose of these new requirements is to avoid the necessity of lengthy fact finding, investigations, and negotiations at the time of enforcement. Enforcement of violations of requirements under this Act should be based on relatively narrow fact situations requiring a minimum of discretionary decision making or delay.

<FWPCA § 309> The bill, therefore, deletes the cumbersome conference and hearing procedures in the existing law. Such administrative procedures were appropriate when the control program was based on ambient water quality and would serve no purpose except delay in an enforcement program based on effluent controls.

<FWPCA § 309> Against the background of the Clean Air Act and the Refuse Act the Committee concluded that the enforcement presence of the Federal government shall be concurrent with the enforcement powers of the States. The Committee does not intend this jurisdiction of the Federal government to supplant state enforcement. Rather the Committee intends that the enforcement power of the Federal government be available in cases where States and other appropriate enforcement agencies are not acting expeditiously and vigorously to enforce control requirements.

<FWPCA § 309> Under the Refuse Act the Federal government is not constrained in any way from acting against violators. The Committee continues that authority in this Act.

<FWPCA § 309> The Committee again, however, notes that the authority of the Federal Government should be used judiciously by the Administrator in those cases deserve Federal action because of their national character, scope, or seriousness. The Committee intends the great volume of enforcement actions be brought by the State. It is clear that the Administrator is not to establish an enforcement bureaucracy but rather to reserve his authority for the cases of paramount interest.

<FWPCA § 309> It should be noted that if the Federal, State, and local agencies fail to exercise their enforcement responsibility, the public is provided the right to seek vigorous enforcement action under the citizen suit provisions of section 505 <FWPCA § 505>.

<FWPCA § 309> It should be noted that the Administrator is partially limited in acting under Section 301(a) <FWPCA § 301>. The Administrator is precluded from acting where the allegation is for failure to acquire a necessary permit under Section 402 <FWPCA § 402>, if the owner or operator of a discharge has filed an application for such required permit. The Administrator retains, without qualification, the authority presently available under the Refuse Act to prosecute for unlawful discharges.

<FWPCA § 309> The distinction between enforcement for violation of an unlawful discharge and enforcement for operating without a required permit under Section 402 <FWPCA § 402> is intended to cause the Administrator to act expeditiously to issue permits under Section 402 <FWPCA § 402>.

<FWPCA § 309> The Committee further recognizes that sanctions under existing law have not been sufficient to encourage compliance with the provisions of Federal Water Pollution Control Act. Therefore, the Committee proposes to increase significantly the penalties for knowing violations would be subject to penalty of \$25,000 per day or imprisonment for one year or both. In addition, any violation of an effluent limitation, effluent standard, pretreatment standard, or standard of performance is subject to a minimum penalty of \$2,500.

[*65] <FWPCA § 309> If conviction is for a second knowing violation, the penalty could be increased to \$50,000 per day of the violation or by imprisonment for 2 years or both. In addition, penalties would be added for knowing violation of the procedural requirements of the Act such as record-keeping, report filing, information availability or falsifying, tampering with, or rendering inaccurate monitoring devices.

The Committee believes that if the timetables established throughout the Act are to be met, the threat of sanction must be real, and enforcement provisions must be swift and direct. Abatement orders, penalty provisions, and rapid access to the Federal District Court should accomplish the objective of compliance.

[**310] SECTION 310 -- INTERNATIONAL POLLUTION ABATEMENT

<FWPCA § 310> If the Secretary of State requests abatement of pollution from a U.S. source that endangers the health or welfare of persons in a foreign country, EPA must notify the State where the discharge originates. If the

pollution is in sufficient quantity to warrant such action and if the foreign nation has given the U.S. similar rights over pollution originating in that nation, EPA shall call a hearing. The hearing board shall consider the allegation and make a recommendation. If the recommendation calls for abatement, EPA shall initiate abatement action if EPA finds that the evidence warrants it.

<FWPCA § 310> Section 10 of existing law provides for a method of abatement of water pollution involving a hearing or conference procedure. While this approach to enforcement against domestic polluters is replaced in this Act by sections 309 <FWPCA § 309> and 402 <FWPCA § 402>, it is retained for water pollution of an international character. In addition to conforming changes, the only substantial modification of section 10 of existing law as it deals with international water pollution situations, is the requirement that effluent data involved in any enforcement action under this section be made public and not considered confidential as a trade secret.

[**311] SECTION 311 -- OIL AND HAZARDOUS SUBSTANCE LIABILITY

<FWPCA § 311> The portions of this section that deal with clean-up liability for oil discharges are taken from existing law. Modifications add liability for the clean-up of any hazardous material discharged onto the navigable waters.

<FWPCA § 311> EPA shall designate materials and quantities that are hazardous. To be judged hazardous, a pollutant must present an imminent and substantial danger to the public health or welfare, including fish, shellfish, and beaches.

<FWPCA § 311> The discharger of any hazardous substance that cannot be cleaned up is liable to a penalty of \$5,000 for each barrel of material that is discharged. The discharger has the same defenses existing in present law to anyone discharging oil: an Act of God, act of war, negligence on the part of the U.S. Government, or an act of a third party.

<FWPCA § 311> Section 311 enacted as a part of the Water Quality Improvement Act which provides for the control of oil pollution has been modified [*66] in three respects. First, the Federal Maritime Commission (which has been charged by the President with responsibility to regulate and enforce the financial responsibility requirements of this Section) is provided enforcement authority required to carry out effectively its functions with respect to vessels which violate the financial responsibility provisions.

<FWPCA § 311> Second, the Committee bill provides for the assessment of the penalty for discharging oil or hazardous substances in the case where the owner or operator acted "willfully or negligently". As contained in existing law the penalty applied to a "knowing" discharge and was only being sought when "actual knowledge" could be shown.

<FWPCA § 311> Third, the Committee determined, on the basis of reports authorized by and subsequently submitted pursuant to the Water Quality Improvement Act, that hazardous substances heretofore treated in a separate section should be subject to the same control mechanism applied to oil. Under present law major spills of hazardous substances which could cause significant environmental and economic damage are not subject to liability for the cost of clean-up of those spills. The Committee was concerned that many hazardous substances cannot be cleaned-up by standard methods because they immediately dissolve in the receiving waters.

<FWPCA § 311> These substances, the discharge of which may cause environmental disaster, could not be subject to any meaningful clean-up liability. A clean-up liability provision therefore would provide no incentive to carriers and handlers of these substances to exercise the great caution that such materials warrant.

<FWPCA § 311> The Committee notes that in the March, 1971 report entitled "Control of Hazardous Polluting Substances", the Administration made the following recommendation: "We have examined the issue of whether there should be financial limitations of liability for the costs of removal of hazardous polluting substances, and we have concluded that there should be no liability limitations imposed."

<FWPCA § 311> The Committee believes that the discharge of such substances should be subject to penalty even though clean up is not practicable. In this way, each carrier or handler evaluates the risk of discharge and determines whether or not the potentially penalty is worth the risk. Because the penalty to be imposed under this section should relate to the environmental hazard involved, the Committee determined that the Administrator should set the amount of penalty on the basis of the actual amounts of material released into the waste environment. The bill would establish a minimum fine of \$50,000 and a limit per barrel fine of \$5,000. The Administrator is expected by regulation to set the fine per barrel of discharge based on toxicity, degradability, and disposability of such substances.

<FWPCA § 311> Because no outside limit is proposed the potential penalty would be the amount of substance involved times the amount of penalty set by the Administrator.

<FWPCA § 311> Concern has been expressed as to the potential magnitude of a fine to which a carrier or handler of a hazardous substance might be exposed.

<FWPCA § 311> The Committee examined this concern and concluded that the penalty would be limited in two ways: First, the Administrator would establish per unit limits on the basis of the hazard posed by each of the sub- [*67] stances designated. Second, the penalty would be strictly limited to those substances actually released into the water.

<FWPCA § 311> The Committee recognizes that a bulk carriage of a substance which has an extremely high per unit penalty will be exposed to an unacceptable level of liability. Faced with this fact, bulk carriage of extremely toxic materials in most cases will pose an unacceptable risk. Thus by determining not to haul, in bulk, such hazardous materials the carrier will avoid unacceptable economic risk and the public will not be confronted with unacceptable environmental risk (over which only the carrier has any control).

[**312] SECTION 312 -- MARINE SANITATION DEVICES

<FWPCA § 312> This section closely follows a similar provision in existing law. New language frees from State regulation any boat owner who installs a federally certified treatment device prior to the effective date of regulations that require use of such devices.

<FWPCA § 312> This Section, enacted as part of the Water Quality Improvement Act of 1970, has only been changed in two instances to clarify Congressional intent.

<FWPCA § 312> Subsection (f) of Section 312 is revised to provide that any vessel which installs a marine sanitation device in compliance with any standards or regulations required by this Section prior to the effective date of such standard shall be protected from any State or local enforcement action or other requirement.

<FWPCA § 312> Subsection (f) is also modified to clarify the provision which allows a State to apply for a complete prohibition on discharges from vessels where protection and enhancement of the quality of specified waters requires such prohibition.

<FWPCA § 312> Under the 1970 Act the State was required to show that the specific discharge caused a specific violation of water quality standards. In other parts of this report the difficulty of demonstrating a direct relationship between a specific discharge and water quality is discussed. In light of this difficulty the Committee has attempted to clarify the intent of this provision.

[**313] SECTION 313 -- FEDERAL FACILITIES POLLUTION CONTROL

<FWPCA § 313> This section, similar to one in existing law, requires that Federal facilities meet the same effluent limitations as private sources of pollution, unless the Federal facility is specifically exempted by the President. The President cannot exempt any source from requirements of Sections 306 <FWPCA § 306> and 307 <FWPCA § 307>.

<FWPCA § 313> This section would require every Federal agency with control over any activity or real property, to provide national leadership in the control of water pollution in such operations.

Evidence received in hearings disclosed many incidents of flagrant violations of air and water pollution requirements by Federal facilities and activities. Lack of Federal leadership has been detrimental to the water pollution control effort. The Federal Government cannot expect private industry to abate pollution if the Federal Government continues to pollute. This section requires that Federal facilities meet all control requirements as if they were private citizens.

[*68] <FWPCA § 313> The Committee recognizes, however, that it may be in the paramount interest of the United States that a plant or facility not achieve full water pollution control within the time required. Therefore, the bill would provide case by case exceptions, on the basis of determination by the President, for a period of no more than one year.

<FWPCA § 313> New one-year extensions could be granted on the basis of a subsequent determination by the President. The President would be required to report each January to the Congress on any such exception during the preceding year, together with a detailed explanation of the need to grant such exceptions.

<FWPCA § 313> No exception could be granted due to lack of appropriations, unless the Congress specifically rejected a request for funds that appeared as a line item in the Budget request.

[**314] SECTION 314 -- CLEAN LAKES

<FWPCA § 314> All States shall identify and classify their lakes according to eutrophic condition, and set up procedures to control lake pollution and restore these lakes. Seventy percent grants are authorized to assist States in carrying out this program, with \$300,000,000 authorized over three fiscal years.

In many areas of the nation, fresh water lakes and reservoirs are seriously degraded by municipal-industrial pollutants, by agricultural runoff, and by accelerated sedimentation. These pollutants greatly accelerate the rate of eutrophication.

Lake Erie is an example of this process. There is not a State, however, in which the water quality of lakes is not seriously degraded.

Excessive eutrophication, accumulated sludge and other pollutants, reduced flow and severe water level fluctuations, and heavy sedimentation all are contributing to critical conditions which must be remedied promptly if the lakes are to recover and continue their natural function in our national life.

<FWPCA § 314> The Committee bill adopts the essence of legislation proposed by Senator Walter F. Mondale which requires each State to classify fresh water lakes according to water quality condition and to develop plans and methods for restoring those lakes. The plans are to be submitted to the Administrator for his approval.

<FWPCA § 314> Upon approval by the Administrator, such State will become eligible for Federal grants to pay 70 percent of the cost of carrying out the approved programs. A total of \$300 million is authorized for these grants as follows: \$50 million for fiscal year 1972, \$100 million for fiscal year 1973, and \$150 million for fiscal year 1974.

<FWPCA § 314> To complement the procedure set out, the bill authorizes the Administrator to develop methods, processes, and procedures to restore fresh water lakes. Only in this manner can the program be fully used. While the Committee recognizes that many such techniques will require development, many methods now available have considerable potential for cleaning and restoring water quality to lakes. In view of the urgent need in many areas of the Nation, these methods should be supported.

[*69] TITLE IV -- PERMITS AND LICENSES

[**401] SECTION 401 -- CERTIFICATION

<FWPCA § 401> This section, largely taken from present law, requires that any applicant for a Federal license or permit provide the licensing agency with a certification from the State in which the discharge occurs that any such discharge will comply with Sections 301 <FWPCA § 301> and 302 <FWPCA § 302>.

<FWPCA § 401> This section is substantially section 21 (b) of existing law (enacted as a part of the Water Quality Improvement Act of 1970) amended to assure consistency with the bill's changed emphasis from water quality standards to effluent limitations based on the elimination of any discharge of pollutants.

<FWPCA § 401> Subsection (a)(7) has contained a grandfather provision allowing facilities on which construction under a Federal license or permit began before April 3, 1970, three years before any certification would be required. This provision is amended in this bill to except permits under section 402 <FWPCA § 402> of this Act or section 13 of the Rivers and Harbors Act of 1899. Certification will be required for all such permits from the date of enactment on, regardless of the time construction of the facility began.

<FWPCA § 401> Existing law is further modified by section 401 of this bill to include a definition of certification. The certification provided by a State in connection with any Federal license or permit must set forth effluent limitations and monitoring requirements necessary to comply with the provisions of this Act or under State law and such a certification becomes an enforceable condition on the Federal license or permit.

<FWPCA § 401> In addition, the provision makes clear that any water quality requirements established under State law, more stringent than those requirements established under this Act, also shall through certification become conditions on any Federal license or permit. The purpose of the certification mechanism provided in this law is to assure that Federal licensing or permitting agencies cannot override State water quality requirements.

<FWPCA § 401> It should also be noted that the Committee continues the authority of the State or interstate agency to act to deny a permit and thereby prevent a Federal license or permit from issuing to a discharge source within such State or jurisdiction of the interstate agency. Should such an affirmative denial occur no license or permit could be issued by such Federal agencies as the Atomic Energy Commission, Federal Power Commission, or the Corps of Engineers unless the State action was overturned in the appropriate courts of jurisdiction.

[**402] SECTION 402 -- NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

<FWPCA § 402> The Administrator may issue a permit for the discharge of pollutants into the navigable waters, or beyond, if the discharge meets applicable requirements of Sections 209 <FWPCA § 208>, 301 <FWPCA § 301>, 302 <FWPCA § 302>, 306 <FWPCA § 306>, 307 <FWPCA § 307>, or 308 <FWPCA § 308>. Any permit issued under Section 13 of the 1899 Refuse Act prior to June 30, 1972, shall be considered a permit pursuant to this section.

[*70] <FWPCA § 402> Any State may create its own permit system, following Section 304 <FWPCA § 304> guidelines. The Administrator shall approve the State permit program and delegate authority to the State, unless the State program fails to have adequate authority to carry out several specified functions.

<FWPCA § 402> Any State receiving such a delegation of authority shall send a copy of all permit applications to the Administrator. The State may not issue a permit until the Administrator is satisfied that the conditions imposed meet the requirements of the Act. The Administrator may waive this review authority over specific classes or sizes of plants or after a 30-day period.

<FWPCA § 402> Section 402 provides statutory basis for the continuation of a Federal program to control, on a source by source basis the discharge of pollutants into the navigable waters.

<FWPCA § 402> In addition to redirecting the control program from ambient standards to direct effluent controls,

the second most difficult policy and program issue which the Committee considered was the integration of the program under section 13 of the Refuse Act of 1899 initiated by the Administration pursuant to Executive Order in December of 1970.

<FWPCA § 402> When implemented and applied to pollution, the Refuse Act permit program established a direct relationship between the Federal Government and each industrial source of discharge into the navigable waters of the United States. This relationship existed completely independent of the Federal-State program established under the 1965 Act and created a duality of control requirements that placed all parties under a cloud of uncertainty. In addition, to the problem of inter-governmental relations, the Refuse Act authority has significant gaps (particularly its exemption of municipal waste treatment works) that render it seriously inadequate as a means of implementation of a water pollution control program.

<FWPCA § 402> Because of the complexity of the Refuse Act permit program and its relationship to Section 402 a short discussion of the factors involved in development of the permit program is relevant.

<FWPCA § 402> In 1899, the Congress enacted a statute which precisely prohibited the discharge of any "refuse" (subsequently defined by the Courts to include everything except sewage from municipalities) without a permit from the Secretary of the Army (the Corps of Engineers). This prohibition can be enforced with both civil and criminal sanctions. This authority was ignored until June 1, 1971.

<FWPCA § 402> The Corps of Engineers, pursuant to an Executive Order of the President, issued December 23, 1970 (E.O. 11574), proposed regulations (December 31, 1970, 35 F.R. 20005 and January 21, 1971, F.R. 983) to exercise authority contained in the 1899 statute relating to discharges into the navigable waters. The regulations were finally promulgated on April 7, 1971. Supplementary regulations have been promulgated by E.P.A. and several supporting administrative inter-agency agreements have been published.

Recent studies by the Administration reveal that there are at least 40,000 industrial sources of discharge into the navigable waters.

<FWPCA § 402> In part, the "discovery" of the Refuse Act is the result of the Subcommittee on Air and Water Pollution's initiative in the Water [*71] Quality Improvement Act. Section 21(b) of that Act triggers the use of Federal permit authority (including the Refuse Act) as a means of implementing water requirements.

<FWPCA § 402> The regulations of the Corps and the Administrator required all dischargers into the navigable waters to apply for Refuse Act permits by July 1, 1971.

<FWPCA § 402> The period of implementation of the Refuse Act permit program coincides with the evolution of the bill reported by the Committee. Consequently, continuous consultation was undertaken with representatives of State governments, and the Administration in an effort to weave the permit program into this legislation. The Refuse Act as now restated in the Committee bill establishes that the discharge of pollutants into the navigable waters of the United States is prohibited. The Federal Government as the custodian of the navigable waters has the responsibility to control affirmatively any discharges of pollutants into the navigable waters and, under the Committee bill, seek to achieve elimination of the discharge of pollutants.

<FWPCA § 402> It is expected that the States will play a major role in the administration of this program.

<FWPCA § 402> The Committee believes that, after a transition period during which the State program and capability will be upgraded, the program should be administered by those States with programs which meet the requirements of this Act.

<FWPCA § 402> Therefore, the bill provides that after a State submits a program which meets the criteria established by the Administrator pursuant to regulations, the Administrator shall suspend his activity in such State under

the Federal permit program. The Administrator would periodically assess the performance of the State program and have the authority to withdraw this delegation upon finding that the State is not carrying out its program properly.

<FWPCA § 402> Although the Administrator is given the authority to review any permit before it is issued by a State, the Committee expects that, after delegation, the Administrator will withhold his review of proposed permits which are not of major significance. If the Administrator finds that a State program is inadequate to mitigate his involvement he should not approve a State program.

<FWPCA § 402> The Administrator has authority to establish, by regulation, those classes and categories of point sources for which he will not exercise permit-by-permit review in any State that has received delegated authority. Certain classes and categories involving individual dischargers (such as small municipalities) may be more appropriately subject to State review. If the Administrator approves a State program he should waive his right to review such permits in the interest of efficient program management.

<FWPCA § 402> Furthermore, the Committee believes that there are some States which presently possess broad expertise in evaluating certain classes or categories of discharge sources. The Administrator is therefore given flexibility to indicate at the time of approval of a State program that any permit issued by a State for discharge sources in a designated category would not be subject to his residual review authority. For the remaining classes of discharge source, the Administrator retains authority to exercise final review and approval over the issuance of a [*72] permit by a State. The bill, in an effort to insure expeditious implementation of issuance of permit and remove any uncertainty, requires that the Administrator must notify the State within thirty days of the receipt of any application for permit if he desires to waive authority to review and approve. If the Administrator does not so notify within the time required, he retains his authority and the State cannot issue the permit without agreement from the Administrator. Should the Administrator choose not to waive involvement in the development of the conditions of any permit, the Committee urges that he become involved in the process at the earliest possible stage. Such early involvement should minimize the duplication of time and effort by all parties, should facilitate determining the conditions of any permit, and should assure that a permit application will receive prompt consideration.

<FWPCA § 402> The bill would not allow the Administrator to waive his review and approval responsibility under the permit section for those classes and categories of point sources which will discharge into the territorial seas, the waters of the contiguous zone and the waters of the ocean. In such circumstances the Administrator (in addition to requirements under Title III) is required to apply guidelines established by regulation for determining the effect on the territorial sea, the waters of the contiguous zone and the waters of the ocean under section 403 <FWPCA § 403>. Because the Administrator has the expertise with which to make judgments on the effect of the discharge of pollutants into the territorial seas or the contiguous zone and the oceans, consequently every permit issued by a State with an approved program under section 402 would be subject to review and approval by the Administrator in order that all of the factors relating to such discharge and its effect are thoroughly analyzed and the proper control exercised.

<FWPCA § 402> An essential element in any control program involving the nation's waters is public participation. The public must have a genuine opportunity to speak on the issue of protection of its waters. The Committee has therefore established requirements to provide opportunity for public hearing by the Federal Government, or if State participation is approved by the Administrator, the State, and other provisions to make available to the public all relevant information surrounding a discharge source and the control requirements placed on it. This includes the deposit of any permit, and the conditions thereto, in a place of ready public access. The scrutiny of the public and the exercise of authority under this section is extremely important in insuring expeditious implementation of the authority and a high level of performance by all levels of government and discharge sources.

<FWPCA § 402> The integration of the Refuse Act permit program into the Federal Water Pollution Control Act has been difficult but there can be no doubt that the most effective control mechanism for point sources of discharge is one which will provide for the establishment of conditions of effluent control for each source of discharge. A permit or equivalent program, properly implemented and fully utilizing the resources of the State and Federal Government should

provide for the most expeditious water pollution elimination program.

<FWPCA § 402> The information on the technology of control developed under section 304 <FWPCA § 304> should facilitate the administration of this system.

[*73] <FWPCA § 402> One of the most difficult problems of enforcement is the sanction or remedy to be applied in the event there is a violation of an effluent requirement by a municipal treatment works. Through the vehicle of a permit a mechanism is provided to reach through the municipality or other public body to regulate the actual course of such violations; the respective contributors to the municipal waste load. The Committee has, therefore, authorized the State or, if appropriate, the Administrator to proceed directly against the users of the treatment works, and to restrict new additions to such treatment works until any violation has been abated.

<FWPCA § 402> Several bills pending before the Committee provided authority to establish Federally approved standards for groundwaters which permeate rock, soil, and other subsurface formations. Because the jurisdiction regarding groundwaters is so complex and varied from State to State, the Committee did not adopt this recommendation.

<FWPCA § 402> The Committee recognizes the essential link between ground and surface waters and the artificial nature of any distinction. Thus the Committee bill requires in section 402 that each State include in its program for approval under section 402 affirmative controls over the injection or placement in wells or any pollutants that may affect ground water. This is designed to protect ground waters and eliminate the use of deep well disposal as an uncontrolled alternative to toxic and pollution control.

The importance of groundwater in the hydrological cycle cannot be underestimated. Although only about 21.5 percent of our domestic, industrial agricultural supply comes directly from wells, it must be remembered that rivers, streams and lakes themselves are largely supplied with water from the ground -- not surface runoff.

Present water pollution control programs concentrate on the control of pollutants placed in surface waters, on the assumption that to control these inputs will assure desirable qualities in the ground waters. Unfortunately, this is not always the case. Groundwaters, due to their much larger volume than surface waters, their slow natural rates of circulation, and their almost complete absence of living organisms can accept more pollutants with less obvious, direct degradation than can well-defined lakes and rivers with their tell-tale biologic indicators of chemical change. However, due to the lack of organisms and slow circulation, polluted groundwaters generally have no "self-cleaning" mechanisms, and could remain polluted for centuries.

Groundwater pollution is not as serious a national problem at present as is surface water pollution, but groundwater availability and quality is deteriorating. In some locales, serious hazard exists. Deep-well disposal raises a possibility of irrevocable damage to public aquifers and slow dissemination of pollutants into potential water supplies. Deep water wells are not now widely used for public water supplies except in water-short areas like west Texas and Nebraska where shallower groundwaters have been virtually exhausted since the end of the second world war. However, deep disposal wells are becoming more prevalent throughout the nation, while deep wells are predicted to supply increasing percentages of public water in the arid west and southwest in the next two decades.

[**403] [*74] SECTION 403 -- OCEAN DISCHARGE CRITERIA

<FWPCA § 403> This section sets standards under which a permit can be issued for a discharge of pollutants into the territorial sea, the contiguous zone, or the ocean.

<FWPCA § 403> The Administrator shall establish guidelines on the effect of disposal of pollutants on human health and welfare, on marine life, and on recreational and economic values, as well as guidelines for determining the persistence of the pollutant and other possible locations for its disposal.

<FWPCA § 403> The Committee on Public Works has exclusive jurisdiction over legislation affecting the discharge of pollutants into the navigable waters of the United States. This includes territorial seas of the United States, which, under present law, is a band of the oceans extending in most States three miles from the shore. In addition, the Committee has exclusive jurisdiction over the discharge of pollutants from any facility located within States through a pipeline into any part of the oceans including the contiguous zone or beyond. The Committee has established a regulatory framework to control the discharge of pollutants into the navigable waters and from pipelines beyond the territorial seas in Sections 301 <FWPCA § 301>, 402 <FWPCA § 402> and 403. The framework is in concert with the ultimate objective of the Act to eliminate the discharge of pollutants.

The Committee shares equally jurisdiction with the Senate Commerce Committee over the disposal of pollutants from vessels beyond the territorial seas. Both the Committee on Public Works and the Commerce Committee have had before them several bills which would create a regulatory scheme to control the discharge of pollutants from vessels beyond three miles. Both Committees have held hearings on the subject of ocean degradation. There can be no doubt that there is presently serious deficiency that exists in present law that must be repaired if this Nation is to lead in the protecting the quality of the ocean.

In order to expedite the legislative process, the Committee on Public Works and the Committee on Commerce have jointly agreed on a bill to provide the regulatory framework to control the dumping of pollutants from vessels into the waters beyond the territorial seas. It has been further agreed that this provision will be contained in a bill to be reported from the Commerce Committee with the concurrence of the Committee on Public Works as to those portions on which there is a joint agreement. The basic outline of the bill would provide the Administrator of the Environmental Protection Agency with authority to control all dumping of pollutants from vessels beyond three miles to twelve miles to control discharge of pollutants from vessels beyond 12 miles wherever such pollutants are generated in the territorial jurisdiction of the United States.

Coupled with the provisions in the bill reported by the Committee on Public Works, the bill to be reported from the Commerce Committee should enable the United States to have complete and integrated regulation of the disposal of pollutants into all waters and over all sources of pollutants subject to its jurisdiction. It is expected that the leadership so exercised by the United States will be the model for [*75] other nations and should in a short time produce the framework for international agreement over the protection of the oceans.

<FWPCA § 403> The disposal of pollutants into ocean waters is regulated under this bill when it involves a discharge from any outfall beyond the shore-line of the United States or any discharge into the territorial sea from a vessel. Under a bill to be jointly reported by the Committee on Public Works and the Committee on Commerce, the discharge of pollutants from vessels into the waters of the contiguous zone and the oceans would be regulated.

<FWPCA § 403> Under section 403, no discharge into ocean waters would be allowed, except in compliance with the criteria established under this section. The Federal role in establishing conditions on any permit for discharge into ocean waters could not be waived. In subparagraph (c) (1)(A) of the section, the contamination of marine organisms or waters which prevents the harvesting of sea food that is safe to eat, the use of oceans for recreation, or its use as drinking water after desalination, among other things, would be recognized as detrimental to human health or welfare.

The ocean's waters are in constant circulation, so that any discharge beyond any arbitrary limit, such as 3 or 12 miles, may reach the beaches of the United States. Thus, in considering discharge effects, the Administrator must consider the effect that the discharge may have elsewhere on the integrity of marine systems.

<FWPCA § 403> In subparagraph (c) (1) (G) the Committee wishes to emphasize the need to preserve the ocean in as natural a state as possible at least until we understand its tolerances and characteristics, so that discharges permitted today will not irreversibly modify the oceans for future uses. Any discharge which would so alter the ocean's character that scientific study of that feature of the ocean is forever destroyed would seem to the Committee inconsistent with the objective of maintaining the integrity of the Nation's coastal waters, which constantly circulate with waters in the open

ocean. For example, discharge of a harmful pollutant at 15 miles may migrate into the coastal zone region, killing large numbers of one or more species, altering the character of the marine ecosystem characteristic of the coastal zone, and preventing study of the zone's natural features before alteration by man's discharges.

TITLE V -- GENERAL PROVISIONS

[**501] SECTION 501 -- ADMINISTRATION

<FWPCA § 501> This section is similar to section 22 of existing law. A new subsection allows EPA to dispatch employees to assist State pollution agencies in their work.

[**502] SECTION 502 -- GENERAL DEFINITIONS

<FWPCA § 502> The section defines pollutant, pollution, effluent limitation, discharge, toxic pollutant, point source, biological monitoring, and several other words and phrases as they are used in this Act.

<FWPCA § 502> The bill would amend the definition of a State water pollution control agency from that contained in existing law to reflect the changes [*76] that have occurred since the definition was first included in the law. Originally the pollution control agencies were coincident with public health officers of the States, and therefore such officers generally administered water pollution control activities. The bill amends the definition of State water pollution control agency to mean the State agency designated by the Governor with responsibility for enforcing State water pollution control laws.

<FWPCA § 502> The definition of interstate agency is refined to make it clear that only those interstate agencies approved by Congress or those with sufficient power to implement the requirements of the Act as determined by the Administrator are functionally qualified to participate in the provisions of the Act.

<FWPCA § 502> The term State, for the purpose of the Act, includes the fifty States of the United States as well as several other jurisdictions specified. In addition the term State includes those agencies or instrumentalities of the United States with jurisdiction over river basins which are created by the United States with jurisdiction over river basins if the agency was created by or pursuant to an Act of Congress and has been designated either by the Governors or by the statutes of the participating States as having jurisdiction to implement the Act in the river basin.

<FWPCA § 502> The definition of municipalities is clarified to make clear that public bodies eligible for grants under this Act includes associations formed under State law for the purpose of dealing with water problems, whether or not they are given broad powers of general government, as well as operating agencies established and approved under section 209.

<FWPCA § 502> The term person, for purpose of the Act, means all entities which are capable of suing or being sued.

<FWPCA § 502> For the first time the Committee would add to the law a definition of the term pollutant. In order to trigger the control requirements over addition of materials to the navigable water, waters of the contiguous zone and the ocean, it is necessary to define such materials so that litigable issues are avoided over the question of whether the addition of a particular material is subject to control requirements. The Committee has extracted from the Refuse Act the basic formula and added municipal discharges to it, so that before any material can be added to the navigable waters authorization must first be granted by the Administrator, or State in the case of an approved State program, under Section 402 <FWPCA § 402>. The Committee has made two specific exceptions from the term pollutant; sewage from vessels, as that term is defined and controlled through the provisions of Section 312 <FWPCA § 312>, and water, gas, or other materials associated with the secondary recovery of oil.

<FWPCA § 502> The Committee has added a definition of pollution to further refine the concept of water quality measured by the natural chemical, physical and biological integrity. Maintenance of such integrity requires that any

changes in the environment resulting in a physical, chemical or biological change in a pristine water body be of a temporary nature, such that by natural processes, within a few hours, days or weeks, the aquatic ecosystem will return to a state functionally identical to the original.

In those water bodies which are not pristine, it should be the national policy to take those steps which will result in change towards that pristine state in which the physical, chemical and biological integrity of the water body can be said to exist. Striving towards, [*77] and maintaining the pristine state is an objective which minimizes the burden to man in maintaining a healthy environment, and which will provide for a stable biosphere that is essential to the well-being of human society.

<FWPCA § 502> The control strategy of the Act extends to navigable waters. The definition of this term means the navigable waters of the United States, portions thereof, tributaries thereof, and includes the territorial seas and the Great Lakes. Through a narrow interpretation of the definition of interstate waters the implementation 1965 Act was severely limited. Water moves in hydrologic cycles and it is essential that discharge of pollutants be controlled at the source. Therefore, reference to the control requirements must be made to the navigable waters, portions thereof, and their tributaries.

<FWPCA § 502> The Committee has added definitions of the terms territorial seas, contiguous zone, and ocean to describe clearly the jurisdictional limits of the Act, and provide a basis for its relationship to other laws of the United States as well as to international law.

<FWPCA § 502> A definition of effluent limitations has been included so that control requirements are not met by narrative statements of obligation, but rather are specific requirements of specificity as to the quantities, rates, and concentration of physical, chemical, biological and other constituents discharged from point sources. It is also made clear that the term effluent limitation includes schedules and time tables of compliance.

<FWPCA § 502> The Committee has added a definition of schedules and time-tables of compliance so that it is clear that enforcement of effluent limitations is not withheld until the final date required for achievement.

The Committee has also added a definition of the term discharge to indicate the scope of the control requirements under the Act. Any pollutant added to the navigable waters from any point source or the addition of any pollutant to the contiguous zone or the water of the ocean by outfall or other pipeline is included within the control requirements of Title III or the addition of any pollutant to a publicly owned treatment works by any industrial user.

<FWPCA § 502> A definition of toxic substance is provided to assist the Administrator in implementing his authority under section 307 <FWPCA § 307> to regulate toxic discharges. The definition provides a benchmark for evaluating those pollutants which in certain concentrations would have a particularly adverse impact on humans as well as other forms of life. It is necessary to evaluate the effect of all forms of such pollutants and consider their persistence, degradation, or interaction with other materials, once in the receiving water.

<FWPCA § 502> Disease-causing agents are intended to refer to all pathogens, including viruses, which may produce disease symptoms in any organisms. In addition, any pollutant or agent which lowers an organism's resistance to serious disease should be considered a toxic pollutant.

<FWPCA § 502> The following substances were mentioned in relation to potential toxic effects by the President's Council on Environmental Quality (April, 1971) in a report entitled Toxic Substances: lead, cadmium, mercury, vanadium, arsenic, molybdenum, antimony, nickel, barium, beryllium, copper, selenium, zinc, nitrotriacetic acid (NTA), orthonitrochlorobenzene (ONCB), polychlorinated biphenyls (PCB's), dichlorodiphenyl-trichloroethane (DDT). The Committee expects the [*78] Administrator to give first consideration to these pollutants in the exercise of his authority under Section 307 <FWPCA § 307>.

<FWPCA § 502> Such substances as heavy metals should be controlled on an absolute rather than on a regional

waste management basis. The following criteria would affect such classification:

- the presence of pathogenic organisms, including viruses;
- the seriousness and irreversibility of any effects on man or the environment that might occur;
- the likelihood or possibility that such effects might occur;
- the possibility for incorporation into biological organisms and man in concentrations which latest scientific knowledge suggests will produce effects on man and organisms;
- the nondegradable or persistent nature of the substance;
- the availability of data on similar substances or compounds; and
- margins of safety to reflect the lack of data on potential toxicity where there is no experience under conditions of human or environmental exposure.

<FWPCA § 502> In order to further clarify the scope of the regulatory procedures in the Act the Committee has added a definition of point source to distinguish between control requirements where there are specific confined conveyances, such as pipes, and control requirements which are imposed to control runoff. The control of pollutants from runoff is applied pursuant to section 209 <FWPCA § 208> and the authority resides in the State or other local agency.

[**503] SECTION 503 -- WATER POLLUTION CONTROL ADVISORY BOARD

<FWPCA § 503> This section is section 9 of existing law, conformed with the remainder of the bill, and modified to allow \$100 per diem for Board members while attending conferences or meetings of the Board.

<FWPCA § 503> The Committee expects that the recommendations of the Board shall be included in the annual report required under Section 515 <FWPCA § 515> of the Act.

[**504] SECTION 504 -- EMERGENCY POWERS

<FWPCA § 504> If a pollution source presents an imminent or substantial endangerment to the health of persons, EPA shall issue an immediate abatement order. If a pollution source could present a substantial economic injury to persons because of their inability to market shellfish, EPA shall initiate a civil suit for relief.

<FWPCA § 504> The bill would grant new authority to the Administrator to take remedial action in case of a water pollution episode.

<FWPCA § 504> This emergency authority provides for immediate, effective action whenever the discharge of water pollutants reach levels of concentration that present an imminent or substantial endangerment to the health or welfare of persons. In addition the bill provides emergency abatement authority to protect shellfish and shellfish products.

<FWPCA § 504> The bill recognizes the importance of contingency planning, and would require such contingency planning as a part of the water pollution control program of each State.

[*79] <FWPCA § 504> When the prediction can reasonably be made that such elevated levels could be reached even for a short period of time -- that is that they are imminent -- an emergency action plan should be implemented to reduce or terminate the discharge of pollutants and prevent the occurrence of substantial endangerment.

<FWPCA § 504> The Committee expects the Administrator to continue to refine emergency procedures under section 504 of this bill and to assist the States and municipalities in the development and execution of such procedures.

[**505] SECTION 505 -- CITIZEN SUITS

<FWPCA § 505> Anyone may initiate a civil suit against any person who is alleged to be in violation of an effluent limitation or a Federal or State abatement order, or against the Administrator for failure to perform a non-discretionary act.

<FWPCA § 505> No action on a suit may begin for 60 days following notification. If EPA or the State begins a civil or criminal action on its own against the alleged violator, no court action may take place on the citizen's suit. Litigation costs may be awarded to any party when the court determines such an award is appropriate.

<FWPCA § 505> Without regard to any time limitation, a Governor may start action against the Administrator for an alleged failure to abate a pollution violation in another State that adversely effects the Governor's State.

<FWPCA § 505> The Committee has established a provision in the bill that would provide citizen participation in the enforcement of control requirements and regulations established under this Act modeled on the provision enacted in the Clean Air Amendments of 1970. As in that Act the provision in this bill is carefully restricted to actions where violations of standards and regulations or a failure on the part of officials to act are alleged. One modification would allow the Courts to impose civil penalties provided as a result of actions brought by citizens. It should be noted that any penalties imposed would be deposited as miscellaneous receipts and not be recovered by the complainant. In addition the bill specifically provides that a Governor may utilize the authority granted, without reference to time limitations, to seek abatement of pollution which originates in another State and affects his State. Also, since a municipality may not be able to comply with a Court order because of limitations resulting from State law the bill would provide that the State shall be joined as a party.

<FWPCA § 505> Section 505 would not substitute a "common law" or court-developed definition of water quality. An alleged violation of an effluent control limitation or standard, would not require reanalysis of technological in other considerations at the enforcement stage. These matters will have been settled in the administrative procedure leading to the establishment of such effluent control provision. Therefore, an objective evidentiary standard will have to be met by any citizen who brings an action under this section.

<FWPCA § 505> In order to further encourage and provide for agency enforcement, the Committee has added a requirement that prior to filing a petition with the court, a citizen or group of citizens would first have to serve notice of intent to file such action on the Federal and State water [*80] pollution control agency and the alleged polluter. Each citizen or group would have to include facts in such notice in accordance with regulations prescribed by the Administrator. The Administrator should prescribe such regulations as soon as possible after enactment, and such regulations should reflect simplicity, clarity, and standardized form. The regulations should not require notice that places impossible or unnecessary burdens on citizens but rather should be confined to requiring information necessary to give a clear indication of the citizens' intent. These regulations might require information regarding the identity and location of alleged pollutor, a brief description of the activity alleged to be in violation, and the provision of law alleged to be violated.

<FWPCA § 505> The Committee has provided a period of time after notice before a citizen may file an action against an alleged violator. The time between notice and filing of the action should give the administrative enforcement office an opportunity to act on the alleged violation.

<FWPCA § 505> It should be emphasized that if the agency had not initiated abatement proceedings following notice or if the citizen believed efforts initiated by the agency to be inadequate, the citizen might choose to file the action. In such case, the courts would be expected to consider the petition against the background of the agency action and could determine that such action would be adequate to justify suspension, dismissal, or consolidation of the citizen

petition. On the other hand, if the court viewed the agency action as inadequate, it would have jurisdiction to consider the citizen action notwithstanding any pending agency action.

<FWPCA § 505> The Committee emphasizes that if the alleged violation is a failure to comply with an administrative enforcement order, a violation of a standard of performance, or a prohibition, or effluent standard or limitation established under the act, there would be no waiting period following notice. It is the Committee's intent that enforcement of these control provisions be immediate, that citizens should be unconstrained to bring these actions, and that the courts should not hesitate to consider them.

<FWPCA § 505> Section 505 would provide that a citizen enforcement action might be brought against an individual or a government agency. As recognized under section 313 <FWPCA § 313> of the bill, Federal facilities generate considerable water pollution. Since some Federal agencies such as the Department of Defense have failed in abating pollution and in requesting appropriations to develop control measures, it is important to provide that citizens can seek, through the courts, to expedite the government performance specifically directed under section 313 <FWPCA § 313>.

<FWPCA § 505> The standards for which enforcement would be sought either under administrative enforcement or through citizen enforcement procedures are the same. Therefore the participation of citizens in the courts seeking enforcement of water pollution control requirements should not result in inconsistent policy. Whether abatement is sought by an agency or by a citizen, there should be a considerable record available to the courts in any enforcement proceeding resulting from the Federal and State administrative standard-setting procedures. Consequently, the factual basis for enforcement of requirements would be available at the time enforcement is sought, and the issue before the courts would be a factual one of whether there had been compliance.

[*81] <FWPCA § 505> The information and other disclosure obligations required throughout the bill are important to the operation of this provision. The Administrator would have a special duty to make meaningful information on discharging sources available to the public on a timely basis.

<FWPCA § 505> The section is drawn to avoid problems raised by class action provisions of the Federal rules of civil procedure, specifically by Rule 23. Section 505 does not authorize a "class action." Instead, it would authorize a private action by any citizen or citizens acting on their own behalf. Questions with respect to traditional "class" actions often involve: (1) identifying a group of people whose interests have been damaged; (2) identifying the amount of total damage to determine jurisdiction qualification; and (3) allocating any damages recovered. None of these points is appropriate in citizen suits seeking abatement of violations of water pollution control requirements. It should be noted, however, that the section would specifically preserve any rights or remedies under any other law. Thus, if damages could be shown, other remedies would remain available. Compliance with requirements under this Act would not be a defense to a common law action for pollution damages.

<FWPCA § 505> Concern was expressed that some lawyers would use section 505 to bring frivolous and harassing actions. The Committee has added a key element in providing that the courts may award costs of litigation, including reasonable attorney and expert witness fees, whenever the court determines that such action is in the public interest. The court could thus award costs of litigation to defendants where the litigation was obviously frivolous or harassing. This should have the effect of discouraging abuse of this provision, while at the same time encouraging the quality of the actions that will be brought.

<FWPCA § 505> The Courts should recognize that in bringing legitimate actions under this section citizens would be performing a public service and in such instances, the courts should award costs of litigation to such party. This should extend to plaintiffs in actions which result in successful abatement but do not reach a verdict. For instance, if as a result of a citizen proceeding and before a verdict is issued, a defendant abated a violation, the court may award litigation expenses borne by the plaintiffs in prosecuting such actions.

<FWPCA § 505> Enforcement of pollution regulations is not a technical matter beyond the competence of the courts. The citizen suit provision is consistent with principles underlying the Federal Water Pollution Control Act, that is the development of clear and identifiable requirements. Such requirements should provide manageable and precise benchmarks for enforcement.

<FWPCA § 505> As pointed out, the Committee bill would provide in the citizen suit provision that actions will lie against the Administrator for failure exercise his duties under the Act, including his enforcement duties. Authority granted to citizens to bring enforcement actions under this section is limited to effluent standards or limitations established administratively under the Act. Such standards or limitation are defined in subsection (f) of Section 505 to include the enforcement of an unlawful discharge under section 301(a) <FWPCA § 301>, effective after July 1, 1973. By limiting the effective date of citizens suits for violation of this provision the Committee believes sufficient time is available for the State and Federal governments to develop fully, and execute the authority contained in section 402 <FWPCA § 402>.

[*82] <FWPCA § 505> In addition to violations of section 301(a) <FWPCA § 301> citizens are granted authority to bring enforcement actions for violations of schedules or timetables of compliance and effluent limitations under section 301 <FWPCA § 301>, standards of performance under section 306 <FWPCA § 306>, prohibitions or effluent standards and pretreatment standards under section 307 <FWPCA § 307>, provisions of certification under section 401, and any condition of any permit issued under section 402 <FWPCA § 402>.

[**506] SECTION 506 -- APPEARANCE

<FWPCA § 506> EPA shall appoint its own attorney to represent EPA in any court action, if the Attorney General does not, within a reasonable time, notify the Administrator that the Justice Department will represent EPA.

<FWPCA § 506> The Committee recognizes that this legislation would put greatly increased burdens on the administering agency. Constant legal assistance would be required in legislative interpretation, administrative procedure, review of implementation plans, information acquisition, and enforcement. The Administrator would need a staff of supporting attorneys. Good administration dictates that such assistance be immediately available to the Administrator.

<FWPCA § 506> Therefore, the bill would authorize the Administrator to appoint attorneys to appear and to represent him in actions instituted under the Federal Water Pollution Control Act, if, after initial request to the Attorney General for litigation services, the Attorney General notified the Administrator he would be unable to provide quickly such services. The Committee believes this is necessary for three reasons. First, the timetables imposed by the bill would require that full time legal assistance be available to assure compliance. Second, new enforcement procedures would require the development of competence and expertise if the Act were to be administered and enforced fairly and expeditiously. Finally, failure to comply with enforcement within the time required would necessitate immediate action in Federal District Courts to seek compliance with such order.

<FWPCA § 506> The purpose of the bill is to establish clear and enforceable requirements upon those activities which affect water quality. Monitoring requirements and information acquisition should reveal violations of control requirements with a minimum of factual complexity. Once the Administrator has, under the procedures established under the bill, determined a violation, the government should immediately proceed to abatement. Once this determination is made there should be no further discretionary decision making by government officials.

[**507] SECTION 507 -- EMPLOYEE PROTECTION

<FWPCA § 507> This section offers protection to employees who believe they have been fired or discriminated against as a result of the fact that they have testified or brought suit under this Act. The employee may apply to the Secretary of Labor for review of his case. The Secretary of Labor can issue an order for the employee to be rehired, or otherwise compensated, if the employee's case is justified. The section does not apply to an employee who acts outside

the direction of his employer.

[*83] <FWPCA § 507> Section 507 of the bill is patterned after the National Labor Management Act and a similar provision in Public Law 91-173 relating to the health and safety of the Nation's coal miners. Under this section employees and union officials could help assure that employers do not contribute to the degradation of our environment.

<FWPCA § 507> Any worker who is called upon to testify or who gives information with respect to an alleged violation of a pollution control law by his employer or who files or institutes any proceeding to enforce a pollution control law against an employer may be subject to discrimination.

<FWPCA § 507> The section would prohibit any firing or discrimination and would provide an administrative procedure under which the employee or his representative could seek redress for any violation of this prohibition. The Secretary of Labor would investigate such charges and issue findings and a decision which would be subject to judicial review. If the Secretary should find a violation, he would issue orders to abate it, including, where appropriate, the rehiring of the employee to his former position with back pay. Also, the person committing the violation could be assessed the costs incurred by the employee to obtain redress.

<FWPCA § 507> This provision would safeguard the rights of employees, but it should not encourage employees to frivolously allege violations since the employee would have to pay the costs of the proceedings unless the violation is proved.

<FWPCA § 507> In order to avoid abuse of the protection afforded under this Section the Committee has added a provision which would deny its applicability to any Employee who, without direction from his employer, deliberately violates or wilfully contributed to a violation of any standard, requirement or regulation under the Act.

[**508] SECTION 508 -- FEDERAL PROCUREMENT

<FWPCA § 508> No Federal agency may enter into any contract involving any facility that has been convicted under Section 309 <FWPCA § 309>. The prohibition continues until EPA certifies that the violation that led to the conviction no longer exists.

<FWPCA § 508> The President may exempt any contract if the exemption is in the paramount interest of the United States. The President is required to submit an annual report on implementing this section.

<FWPCA § 508> The Committee, as in the Clean Air Amendments of 1970, has reported a bill that would provide that the Federal Government will not patronize or subsidize polluters through its procurement practices and policies.

<FWPCA § 508> Section 508 would make any person or corporation who fails to comply with a court order issued under this Act or who is convicted of a knowing violation of any requirement under the Act becomes ineligible for a Federal contract for any work to be done at the polluting facility. This ineligibility would continue until the Administrator certifies that the facility is in compliance with the court order or the provisions of the Act.

[*84] <FWPCA § 508> This section would be limited, whenever feasible and reasonable, to contracts affecting only the facility not in compliance, rather than an entire corporate entity or operating division.

<FWPCA § 508> There might be cases where a plant could not participate in a Federal contract due to a violation but another plant owned by the same company might bid and transfer other work to the first plant. This type of action would circumvent the intent of this provision. In this case, the company's second facility should also be barred from bidding until the first plant returns to compliance.

<FWPCA § 508> There would also be instances where a second plant within a corporation was seeking a contract unrelated to the violation at the first plant. In such a case, the unrelated facility should be permitted to bid and receive

Federal contracts.

<FWPCA § 508> The bill also mandates that the President publish new Federal contract guidelines that will enable the Federal Government to exercise its procurement power to assure compliance with the Federal Water Pollution Control Act and to suspend or revoke a contract once the contracting party is found in non-compliance with the requirements of the Act.

<FWPCA § 508> The effectiveness of this section would depend on fast, accurate dissemination of information. All Federal agencies would have to be rapidly apprised of any abatement order or conviction which would bar a facility from eligibility for Federal contracts. The Administrator would also have to act expeditiously to certify that a facility had achieved compliance, and notify all Federal agencies of that fact. Delays in reporting such information, leading to inaccurate public disclosures, would quickly render this section unworkable.

[**509] SECTION 509. ADMINISTRATIVE PROCEDURE AND JUDICIAL REVIEW

<FWPCA § 509> EPA may issue subpoenas. Trade secrets are protected from public reporting. Fees are granted to witnesses. Any suit against a Federal standard must be filed in the U.S. Court of Appeals in Washington, D.C. Suits for review of a Section 402 <FWPCA § 402> permit must be filed in the Court of Appeals for the appropriate circuit. Such suits must be filed within thirty days of promulgation or approval.

<FWPCA § 509> Section 509 of the bill includes provisions relating to subpoenas, specifies the courts in which certain appeals may be prosecuted, and the circumstances under which additional evidence may be ordered by the courts to be taken by the Administrator.

As noted in the discussion of section 305 <FWPCA § 305>, the Administrator is required to furnish information to the Congress and the public on control technology and the status of progress toward eliminating the discharge of pollutants. It should be noted that the authority to subpoena records and other information as contained in section 509 is available to support the acquisition by the Administrator of information necessary to fully apprise Congress of the official status of the control technology and success of the program so that Congress will be in a position to assess accurately water pollution control needs and make any appropriate adjustments in policy on legislation.

<FWPCA § 509> One of the uncertainties in the existing Federal Water Pollution Control Act is the availability or opportunity for judicial review of administratively developed and promulgated requirements, standards [*85] and regulations. Moreover, the effect on the general program of a review itself is not clear.

<FWPCA § 509> Any person has standing in court to challenge administratively developed standards, rules and regulations under the Act. The courts are increasingly adapting this test to what administrative actions are reviewable. In several recent cases [Environmental Defense Fund, Inc. v. Hardin (C.A. No. 23,813, May 28, 1970); Barlow v. Collins (397 U.S. 159, 167 (1970)); Abbott Laboratories v. Gardiner (387 U.S. 136, 140-41 (1967))] the Courts have held that even in matters committed by statute to administrative discretion, preclusion of judicial review "is not lightly to be inferred ... it requires a showing of clear evidence of legislative intent." (E.D.F. v. Hardin, supra, p. 7). The Courts have granted this review to those being regulated and to those who seek "to protect the public interest in the proper administration of a regulatory system enacted for their benefit." (E.D.F. v. Hardin supra, p. 6). Since precluding review does not appear to be warranted or desirable, the bill would specifically provide for such review within controlled time periods. Of course, the person regulated would not be precluded from seeking such review at the time of enforcement insofar as the subject matter applies to him alone.

<FWPCA § 509> Because many of these administrative actions are national in scope and require even and consistent national application, including the approval of State programs under Section 402 <FWPCA § 402>. This section specifies that any review of such actions shall be in the United States Court of Appeals for the District of Columbia. For review of permits issued under section 402 <FWPCA § 402> and other actions which run only to one region, the section places jurisdiction in the U.S. Court of Appeals for the Circuit in which the affected State or region,

or portion thereof, is located.

<FWPCA § 509> In order to maintain the integrity of the time sequences provided throughout the Act, the section would provide that any review sought must be filed within 30 days of the date of the challenged promulgation or other action.

<FWPCA § 509> The Committee recognizes that it would not be in the public interest to measure for all time the adequacy of a promulgation of any standard requirement or regulation by the information available at the time of such promulgation. In the area of protection of public health and environmental quality, it is clear that new information will be developed and that such information may dictate a revision or modification of any promulgated standard, requirement, or regulation established under the act. The judicial review section, therefore, provides that any person may challenge any requirement after the date of promulgation whenever it is alleged that significant new information has become available.

[**510] SECTION 510 -- STATE AUTHORITY

<FWPCA § 510> This section states that the States retain the right to set more restrictive standards than those imposed by this Act.

<FWPCA § 510> This section of the Act retains the right of any State or locality to adopt or enforce effluent standards or limitations, or any other requirement, respecting control or abatement of a water pollution more stringent than those required or established under this Act.

[**511] [*86] SECTION 511 -- OTHER AFFECTED AUTHORITY

<FWPCA § 511> This section requires that the discharge of pollutants under 1888 and 1910 Acts will be regulated according to this Act.

<FWPCA § 511> Section 511 preserves the authority of other Federal laws which are consistent with this Act. Specifically, the authority of the Secretary of the Army to maintain navigation and that under the Rivers and Harbors Act of 1899 is preserved. However, in the case of dredge and fill activities permitted under section 10 of the Rivers and Harbors Act of 1899, a certification under section 401 <FWPCA § 401> or permit under section 402 <FWPCA § 402> would be conclusive as to the effect on water quality. Also this section provides that this Act will not affect or impair the provisions of any treaty of the United States.

<FWPCA § 511> Another provision of this section states that the consultation and coordination requirements of the Fish and Wildlife Coordination Act shall apply only to the provisions of section 306 <FWPCA § 306>, the publication of information under section 304 <FWPCA § 304> and the establishment of guidelines under section 403 <FWPCA § 403> but not to the imposition of any specific effluent limitation on a particular source. In addition, this section provides that discharges of pollutants into the navigable waters subject to the Rivers and Harbors Act of 1910 (dealing with discharges into Lake Michigan) and the Supervisory Harbors Act of 1888 (dealing with discharges into the Baltimore and New York Harbors, and environs), will be regulated under the Federal Water Pollution Control Act. Therefore, the 1910 and 1888 Acts would apply only to discharges affecting navigation or anchorage.

[**512] SECTION 512 -- SEPARABILITY

<FWPCA § 512> This section of the bill restates section 25 of existing law, with minor language changes.

[**513] SECTION 513 -- LABOR STANDARDS

<FWPCA § 513> This section of the bill is section 8(g) of existing law, with minor language changes.

[**514] SECTION 514 -- EFFLUENT STANDARDS AND WATER QUALITY INFORMATION ADVISORY

COMMITTEE

<FWPCA § 515> A nine-member scientific committee is established to hold public hearings and transmit to the Administrator information on any proposed Section 304(b) <FWPCA § 304> regulations or standards under Sections 306 <FWPCA § 306> and 307 <FWPCA § 307>.

<FWPCA § 515> In order to ensure that effluent limitations and standards criteria issued under this bill are based on the maximum amount of scientific and technical information, an Advisory Committee of scientifically and competent independent individuals would participate in the development of information based on which the Administrator would make regulatory decisions.

<FWPCA § 515> The Advisory Committee authorized by this section would consist of nine members appointed by the Administrator of the Environmental Protection Agency serving on a full time basis for a term of four [*87] years. They would be selected from the scientific community on the basis of their capabilities to provide scientific and technical information required for the standards and criteria developed under this Act. Strict conflict-of-interests provisions would apply to the members of this committee.

<FWPCA § 515> Six months before the publication of any guidelines for effluent limitations, proposed standards of performance for new sources, or proposed toxic effluent standards, the Administrator would notify the Advisory Committee of his intent to propose regulations in these areas. Within four months of such notice, the Advisory Committee would provide the Administrator with all the scientific and technical information related to the subject matter which it has developed. To prepare such information, the Advisory Committee may hold a public hearing.

<FWPCA § 515> The information which the Advisory Committee provides to the Administrator would constitute a part of the administrative record of the Administrator's rule-making in these areas. In developing this information the Advisory Committee should utilize the services of other Federal agencies including the United States Geological Survey and the National Environmental Laboratories proposed in S. 1113 if they are established.

<FWPCA § 515> This section provides that the Advisory Committee would cease to exist within one year after the establishment of the National Environmental Laboratories.

[**515] SECTION 515 -- REPORTS TO CONGRESS

<FWPCA § 516> Ninety days after the start of each session of Congress, EPA shall submit a report on measures taken to implement this Act. An annual report to Congress by EPA is also required on detailed cost estimates for carrying out this Act.

<FWPCA § 516> Subsection (b) of section 515 is substantially section 26 from existing law. Subsection (a) adds a requirement for annual reports to the Congress by the Administrator on the development of comprehensive and area wide plans; progress of water pollution control research efforts; development of effluent limitations and control techniques; status of State programs; identification and status of enforcement actions of that year; status of State, interstate, and local pollution control programs; and results of the Administrator's survey on the efficiency of the operation and maintenance of treatment works constructed with grants under this Act.

[**516] SECTION 516 -- GENERAL AUTHORIZATIONS

<FWPCA § 517> This section authorizes funds for those sections of the bill lacking specific authorization. The following sums are authorized: for fiscal 1972, \$150,000,000; for fiscal 1973, \$250,000,000; for fiscal 1974, \$300,000,000; and for fiscal 1975, \$350,000,000.

<FWPCA § 517> In developing the figures included in section 515 <FWPCA § 516> providing for authorizations of appropriations for the next four years to implement the bill as reported, the Committee considered experience with

the Federal Water Pollution Control Act of 1965, the Clean Waters [*88] Restoration Act of 1966 and the Water Quality Improvement Act of 1970 and further consulted with the Administration for estimates of resources needed to implement the proposed amendments.

<FWPCA § 517> Appropriations under existing law have been significantly below the amount authorized. This lack of funding has lessened the effectiveness of water pollution control.

<FWPCA § 517> This pattern cannot continue if the Congress and the Federal government are to retain credibility with the American people. The authorization figures contained in the bill represent the best estimate of the Committee, in consultation with the Administration, of what will be required to implement its provisions.

<FWPCA § 517> Only the availability of manpower, with adequate finding, can provide effective implementation of this Act. The committee expects that past trends will be reversed and that required manpower and resources will be made available to implement the program.

[**517] SECTION 517 -- SHORT TITLE

<FWPCA § 518> This section of the bill restates section 27 of existing law.

MISCELLANEOUS PROVISIONS

[**3] SECTION 3 <FWPC72 § 5> -- OVERSIGHT STUDY

<FWPC72 § 5> The Comptroller General is directed to study research work on waste water treatment for possible conflicts, as well as the efficacy of such programs and report to the Congress by March 1, 1973.

<FWPC72 § 5> The Committee is concerned that research and demonstration programs dealing with water pollution and waste treatment authorized under this Act may conflict with or duplicate similar programs conducted or supported by other Federal agencies.

[**4] SECTION 4 -- DIKED DISPOSAL AREAS

This section strikes subsection (h) of section 123 of the Rivers and Harbors Act of 1970.

The Rivers and Harbors Act of 1970 authorized the construction of diked disposal areas for dredged spoil in the Great Lakes. To reduce as much as possible the need to dispose of dredged spoil in open waters of the Atlantic and Pacific Oceans, it is important that such confined disposal areas be constructed on the East and West coasts, as well as the Great Lakes.

This section removes the limitation to the Great Lakes contained in the provision of the Rivers and Harbors Act of 1970 authorizing such facilities.

The Committee notes that the maintenance and improvement of non-Federal dock and berthing facilities adjacent to authorized Federal channels are essential to navigation. Therefore, private dredgers should be treated on the same basis as the Corps of Engineers, in utilizing diked disposal areas authorized under this section in the regulation of dredging activities and the disposal of dredged spoil, the Corps of Engineers and private dredgers should be subject to the same requirements.

[**5] [*89] SECTION 5 -- INTERNATIONAL AGREEMENTS

<FWPC72 § 7> This section mandates the President to enter into international pollution control agreements.

<FWPC72 § 7> The Committee has repeatedly expressed its concern with global environmental problems. Air and water are resources that do not respect the boundaries of sovereign states. Rapid development and expansion of

industrialization has caused the degradation of these shared resources. There is need to formulate international policies that will preserve, protect, and enhance the quality of the world environment.

<FWPC72 § 7> The Clean Air amendments of 1970 provided for a comprehensive and intensive attack on air pollution that included new source performance standards and controls over the emission of toxic substances. This bill would provide for new source performance standards and controls over the discharge of toxic substances. Discharges of pollutants into the territorial seas or through ocean outfalls would also be subject to regulation.

<FWPC72 § 7> It is the belief of the Committee that there is adequate justification for internationally uniform controls and standards for the regulation of discharges of pollutants into the environment. The Committee places a high priority on the need to formulate and apply such uniform standards of performance for the control of effluents and emissions from any new sources wherever constructed. These standards should be framed to insure that new source are designed, built, equipped, operated, and maintained so as to reduce effluents and emissions to a minimum. Controlling toxic pollutants and the discharge of any pollutants into the oceans also demands priority attention in international agreements. Therefore the bill would provide the President with guidance in conducting the participation of the United States in these international efforts.

<FWPC72 § 7> The 1972 United Nations Conference on the Human Environment affords the United States with an opportunity to seek multilateral cooperative action in areas of priority concern while concentrating on the creation of comprehensive global arrangements for environmental control.

<FWPC72 § 7> The Committee believes that industrialized and developing nations must join together in addressing themselves to the problems of the world environment. It is the responsibility of the industrialized nations to provide assistance to developing nations to assure that a goal of progress without pollution will be achieved.

[*91] ROLLCALL VOTES DURING COMMITTEE CONSIDERATION

During the Committee's consideration of this bill, 15 rollcall votes were taken (including those which were taken during consideration by the Subcommittee on Air and Water Pollution). Pursuant to section 133 of the Legislative Reorganization Act of 1970 and the Rules of the Committee on Public Works, these votes are announced here.

<FWPCA § 202> First, the Subcommittee took two rollcall votes on the Federal share of the costs of waste treatment works. On July 21, the Subcommittee adopted, 8-1, a minimum 60 per cent Federal share, with an additional 15 per cent in States with matching grant programs. Senators Bayh, Beall, Bentsen, Boggs, Montoya, Muskie, Randolph, and Tunney voted in the affirmative, and Senator Buckley voted in the negative. On August 4, the Subcommittee approved, 9-0, a minimum Federal share of 60 per cent, with additional matching funds on a dollar for dollar basis for States contributing a minimum of 5 per cent, up to a maximum Federal share of 75 per cent. Senators Beall, Bentsen, Boggs, Copper, Eagleton, Montoya, Muskie, Randolph, and Tunney voted in the affirmative. (Note: The final decision on this issue was by voice vote during consideration by the full Committee.)

The Committee voted on an amendment offered by Senator Buckley to provide a 100 percent initial Federal contribution to waste treatment works construction, with repayment by the community of 70 per cent of the cost over the life of the works. The amendment failed 3-9, with Senators Baker, Buckley, and Tunney voting in the affirmative, and Senators Bentsen, Boggs, Cooper, Eagleton, Gravel, Montoya, Muskie, Randolph, and Stafford voting in the negative.

Four rollcall votes were taken on the level of authorizations for the sewage treatment works construction grant program. On August 5, the Subcommittee rejected, 6-7, an amendment offered by Senator Cooper for authorizations of \$2 billion in fiscal year 1972 and \$2.5 billion in each of fiscal years 1973, 1974, and 1975. Senators Baker, Beall, Boggs, Buckley, Cooper, and Dole voted in the affirmative, and Senators Bayh, Bentsen, Eagleton, Montoya, Muskie, Randolph, and Tunney voted in the negative. The Subcommittee then approved, 13-0, authorizations of \$2 billion in

fiscal year 1972, \$3 billion in fiscal year 1973, \$4 billion in fiscal year 1974, \$5 billion in fiscal year 1975, and \$6 billion in fiscal year 1976. Senators Baker, Bayh, Beall, Bentsen, Boggs, Buckley, Cooper, Dole, Eagleton, Montoya, Muskie, Randolph, and Tunney voted in the affirmative.

On September 28, Senator Cooper offered an amendment in the Committee to set the section 207 authorizations at \$2 billion in fiscal year 1972, \$3 billion in fiscal year 1973, and \$4 billion in fiscal year 1974. The amendment failed, 8-8, with Senators Baker, Bentsen, Boggs, Buckley, Cooper, Dole, Stafford, and Weicker voting in the affirmative, and Senator Bayh, Eagleton, Gravel, Jordan, Montoya, [*92] Muskie, Randolph, and Tunney voting in the negative. The Committee then accepted, 10-3, Senator Boggs' proposal that \$2 billion be authorized for fiscal year 1972, \$3 billion for fiscal year 1973, \$4 billion for fiscal year 1974, and \$5 billion for fiscal year 1975. Senators Bayh, Bentsen, Boggs, Dole, Eagleton, Gravel, Montoya, Muskie, Stafford, and Tunney voted in the affirmative, and Senators Baker, Buckley, and Cooper voted in the negative.

<FWPCA § 204> Senator Buckley offered an amendment in the Committee on September 28 to require industrial user charges to include only capital costs of construction and not interest costs. The amendment was adopted, 6-5, with Senator Boggs, Buckley, Cooper, Montoya, Randolph, and Stafford voting in the affirmative and Senators Bentsen, Eagleton, Gravel, Muskie, and Tunney voting in the negative.

<FWPCA § 206> The issue of reimbursement for treatment works constructed between 1956 and 1966 was addressed in three rollcall votes. Senator Eagleton offered an amendment in the Subcommittee on August 4 providing for such reimbursement, in addition to that provided in the draft then under consideration for treatment works constructed between 1966 and 1971. The amendment failed, 4-7, with Senators Bayh, Cooper, Eagleton, and Tunney voting in the affirmative, and Senators Beall, Bentsen, Boggs, Buckley, Montoya, Muskie, and Randolph voting in the negative. The Subcommittee then approved the language of the draft, 10-1, with Senators Baker, Beall, Bentsen, Boggs, Cooper, Eagleton, Montoya, Muskie, Randolph, and Tunney voting in the affirmative, and Senator Buckley voting in the negative.

<FWPCA § 206> Senator Eagleton offered his reimbursement amendment again, in the form included in the reported bill, in full Committee on October 13. It was adopted, 11-3, with Senators Baker, Bayh, Bentsen, Dole, Eagleton, Gravel, Jordan, Montoya, Muskie, Randolph, and Tunney voting in the affirmative, and Senators Boggs, Cooper, and Stafford voting in the negative.

On October 19, Senator Boggs offered an amendment to strike from the bill the authority to obligate authorized construction grant funds in advance of appropriation. The amendment failed, 5-9, with Senators Baker, Boggs, Buckley, Cooper and Stafford voting affirmatively, and Senators Bayh, Bentsen, Eagleton, Gravel, Jordan, Montoya, Muskie, Randolph, and Tunney voting negatively.

<FWPCA § 505> The Committee on October 13 approved, 12-3, an amendment offered by Senator Baker to eliminate from the citizen suit provision the mandatory award of litigation costs to a successful plaintiff. Senators Baker, Bentsen, Boggs, Buckley, Cooper, Dole, Eagleton, Gravel, Jordan, Montoya, and Randolph voted in the affirmative, and Senators Bayh, Muskie, and Tunney voted in the negative.

<FWPCA § 404> Senator Randolph offered an amendment providing that the Secretary of the Army would regulate the disposal of dredged spoil, rather than the Administrator. The amendment failed, 6-9, on October 19, with Senators Bentsen, Cooper, Gravel, Jordan, Montoya, and Randolph voting affirmatively, and Senators Bayh, Boggs, Buckley, Dole, Eagleton, Muskie, Stafford, Tunney, and Weicker voting negatively.

The vote of the Committee to report the bill, taken on October 19, was unanimous. Senators Baker, Bayh, Bentsen, Boggs, Buckley, Cooper, Dole, Eagleton, Gravel, Jordan, Montoya, Muskie, Randolph, Stafford, Tunney, and Weicker voted in the affirmative.

[*93] ESTIMATES OF COSTS

Section 252(a) (1) of the Legislative Reorganization Act of 1970 requires publication in this report of the Committee's estimate of the costs of reported legislation, together with a comparison of that estimate with any prepared by a Federal agency. The Committee has developed estimates of the costs to the Federal Government which would be necessary to carry out this legislation, and has used those estimates in determining the amounts which the bill would authorize for particular programs. These sums are indicated in the table below.

[chart]

Many of the specific authorization items in the bill were based on estimates informally supplied by the Environmental Protection Agency. However, where the Committee estimates a need for \$14 billion of Federal funds for waste treatment works construction grants through fiscal year 1975, the Environmental Protection Agency estimates a need for \$6 billion of Federal funds through fiscal year 1974.

[*95] COMMITTEE VIEWS

Water pollution control in the past has all too often been sporadic, inconsistent, and improvised on an ad hoc basis. The major purpose of this legislation is to establish a comprehensive long-range policy for the elimination of water pollution, making it clear to industry and municipalities alike the pollution control performance which will be expected over the next decade. At the same time, the bill provides a mechanism for generating sound, detailed information on the costs which will be associated with the later stages of the control program, and allow subsequent Congresses to evaluate the success of the policy enunciated in this bill.

The Committee recommends the passage of this bill.

[*97] SUPPLEMENTAL VIEWS

SUPPLEMENTAL VIEWS OF SENATORS J. CALEB BOGGS, JOHN SHERMAN

COOPER, HOWARD H. BAKER, ROBERT DOLE, AND JAMES L. BUCKLEY

SUPPLEMENTAL VIEWS

The Federal Water Pollution Control Act Amendments of 1971 represent a major step forward in the effort to enhance our environment and control pollution. We believe it is one of the most significant pieces of legislation that will be considered by the 92d Congress.

We endorse and support most of the concepts and programs within the legislation, and urge their support in the Senate.

However, there is one aspect of the legislation that we believe is unnecessary. This concerns the authority under which the Administrator of the Environmental Protection Agency could enter into contracts and other obligations under Section 207 <FWPCA § 207> for the financing of municipal waste treatment facilities. Such contract obligation authority would enable the Administrator in large measure to skirt the appropriations process in assisting municipalities for the construction of waste treatment facilities.

The sums authorized in Section 207 <FWPCA § 207> are necessary and appropriate, but we do not believe that a contract authority provision is essential to accelerate the water pollution control program. Rather, because of potential technological breakthroughs, we believe it would be wise for the Congress, through the appropriations process, to make an annual examination of the justification for funds to be spent for waste treatment grants.

We fully agree that the water pollution control program holds a very high priority in any list of national goals. But we believe that contract authority is a too restrictive fiscal tool, as it removes the flexibility the Congress and the President should have to re-examine spending levels annually.

The Congress, in appropriations bills for the current fiscal year as well as the two preceding fiscal years, has clearly

demonstrated its support for the national water cleanup effort. As a result, we believe that a contract authority provision in no way is necessary to assure financial support for this important aspect of the legislation. Rather, it may actually prove to be detrimental by removing the program one step from the appropriations process.

J. CALEB BOGGS.
JOHN SHERMAN COOPER.
HOWARD H. BAKER, JR.
ROBERT DOLE.
JAMES L. BUCKLEY.

[*98] SUPPLEMENTAL VIEWS OF SENATOR BOB DOLE

The bill reported by the committee adopts many of the proposals offered by the President in his February 10, 1971, environmental message and has been developed through a long process of consultation and discussion between the committee and the administration.

A major new thrust of this bill is in the field of agricultural pollution, and as a Senator from an agricultural State and a member of the Senate Agriculture Committee, this matter is of great interest to me and my State.

The bill would amend the Federal Water Pollution Control Act to place responsibility on the States for instituting and expanding the control of water pollution related to agriculture. To assist the States in this effort, the Environmental Protection Agency, working closely with the Department of Agriculture, is directed by the bill to provide technical expertise and in some cases financial assistance for combatting this serious, yet extremely complex, form of pollution. A total of \$10 million is provided for agricultural research.

This bill recognizes that the U.S. Department of Agriculture and the agricultural community in general have made great strides in improving the quality of the environment; therefore, the bill does not attempt to parallel or duplicate the contributions already made but seeks to incorporate them into the framework of the act.

The committee report discusses the operative provisions of the bill in considerable detail and describes some of the problems associated with agricultural pollution. Since this is a new area for pollution control legislation, I would like to discuss some of the more important aspects of this area which lie within the scope of the bill's operations.

Agricultural pollution control is concerned primarily with the following:

Sedimentation

Animal wastes

Fertilizers

Pesticides, Fungicides and Herbicides

Forest and crop residues

Agricultural processing wastes

Inorganic salts and minerals

The management and control of these factors are essential to the maintenance of environmental quality while providing food and fiber products in abundant quantity. At the outset, I believe it is important to recognize that we are undertaking the first step in establishing an overall water pollution control system. Before solutions can be effected, we must, first, identify and define the problems which face us, and second, we must then take into account the available means of control and the costs of each type of control.

I believe discussion of three specific problem areas -- pesticides, animal wastes and fertilizers -- will be helpful in understanding the complexity of the agricultural problem and at the same time indicate the need for coordinated control programs.

Most of the problems of agricultural pollution deal with non-point sources. Very simply, a non-point source of pollution is one that does not confine its polluting discharge to one fairly specific outlet, such [*99] as a sewer pipe, a drainage ditch or a conduit; thus, a feedlot would be considered to be a non-point source as would pesticides and fertilizers.

PESTICIDES, HERBICIDES AND FUNGICIDES

Pesticides provide substantial benefits to mankind by protecting plants and animals from pest losses. It has been estimated that without pesticides, food production would be reduced by 40 to 50 percent, with substantial accompanying reductions in quality also.

Approximately 50,000 species of fungi cause more than 1,500 plant diseases; of about 30,000 species of weeds 1,800 cause serious economic losses each year; and nearly 1,500 varieties of nematodes cause significant damage. In addition, there are more than 10,000 species of insects capable of causing large losses in food, feed and fiber production. A number of agricultural chemicals are used to control these problems, and their ecological impact must be taken into account in the formulation of agricultural production programs.

The chief hazard of pesticide use lies in the long-lasting properties possessed by many of them. Some, such as DDT, retain their potency for virtually unlimited periods after application, their residues are introduced into the complicated food chains at work in nature, and, ultimately, they become concentrated at levels which are hazardous to both animal and human life.

Pesticide residues are of concern in three ways. First, residues become attached to soil particles and may reach water through runoff and erosion. Second, some crops pick up and accumulate excess residues when irrigated with water contaminated through runoff erosion.

Third pesticide residues in water are picked up at low levels by certain marine organisms which result in relatively high concentrations being reached in organisms at the top of the food chain.

The use of pesticides and other agricultural chemicals will undoubtedly retain a high level of importance in agriculture for the foreseeable future. In the meantime efforts at both State and Federal levels are paying off in securing the registration and adherence to recommended usages. Increased research is underway to develop alternative means of pest, weed and fungal control. Experiments are underway to develop integrated programs in which cultural, mechanical, chemical and biological methods are combined to achieve the greatest degree of control at the least expense to the environment.

Every possible effort must be made to see that in achieving control appropriate chemicals are applied at carefully controlled minimum rates. Off-target applications must be reduced, and soil and water conservation measures must be utilized to prevent movement of chemicals through runoff and erosion.

The ideal solution to the problem of pesticide residues would be to employ only pesticides which degrade after application and leave no toxic or hazardous after-products. The difficulty in this solution, however, appears to be that the available alternative chemicals which are non-persistent are extremely toxic to human life in the forms in which they are effective in pest control.

Immediate dangers to human life are posed by these extremely toxic chemicals, such as parathion which has been recommended as a substitute for DDT. These substances, commonly referred to as "hot" chem- [*100] icals, are recommended for use because they do attack the pests against which persistent chemicals have proven effective, but they do not persist in their toxic state for long periods after application. Shortly after application, those chemicals start

to disintegrate and are soon absorbed by natural processes leaving no residual accumulation to endanger wildlife or man. The difficulty in their use arises out of their high original toxicity. These chemicals cause most of the deaths from pesticides in the Nation. Mere exposure to dust from a parathion sack has resulted in the death of children, and farmers, justifiably, are fearful to use these "hot" chemicals.

ANIMAL WASTES

Animal and poultry waste, until recent years, has not been considered a major pollutant. Until the past ten or fifteen years few problems existed, because animals were relatively wide-spread on pasture and rangeland and their manure was deposited on the ground to be naturally recycled through the soil and plant cover. Even housed livestock and poultry were supplied with bedding or litter to absorb moisture from manure and facilitate handling in solid form through spreading back on the land.

The picture has changed dramatically, however, as development of intensive livestock and poultry production on feedlots and in modern buildings has created massive concentrations of manure in small areas. The recycling capacity of the soil and plant cover has been surpassed. In these modern facilities the use of bedding and litter has been greatly reduced; consequently, the manure which is produced remains essentially in the liquid state and is much more difficult to handle without odor and pollution problems. Precipitation runoff from these areas picks up high concentrations of pollutants which reduce oxygen levels in receiving streams and lakes and accelerate the eutrophication process.

The present situation and the outlook for future developments in livestock and poultry production show that waste management systems are required to prevent wastes generated in concentrated production areas from causing serious harm to surface and ground waters. Some 115 million dairy and beef cattle, 20 million sheep and lambs, 67 million hogs and pigs and over 900 million poultry, turkeys and broilers produce an estimated 1.6 to 1.8 billion tons of manure each year. This quantity is more than 12 times the amount produced by the human population. Fortunately, only a small portion of this manure is produced under concentrated conditions having a high potential for pollution. Estimates vary, but a reasonable assumption would be that no more than 20 percent of total manure production poses a threat to our water resources. Of this 20 percent, of course, only a small fraction of the pollutants it contains will actually reach ground or surface waters through leaching or surface runoff. However, with increasing concentration of livestock and poultry production in modern facilities the pollution problem will become more serious.

The situation is not one in which solutions appear to be of doubtful value or impossible to accomplish. At the present time waste management systems are being installed by animal and poultry producers with technical assistance from the U.S. Department of Agriculture and the [*101] States. These systems are proving to be effective in preventing pollutants from reaching surface and groundwaters. Systems are also being developed to recycle wastes through the land and its plant cover. Research is being carried out to improve waste management systems. Hearings held by the Air and Water Pollution Subcommittee in Kansas City this year disclosed the fact that those States, such as Kansas, which have large numbers of feedlots are in the forefront of efforts to develop new techniques for waste management. Information and instruction programs are being conducted to notify procedures of animal waste problems.

FERTILIZERS

When virgin soils were first cultivated in America, they were rich in organic matter and plant nutrients and provided far more nitrogen and phosphorus than crops could use. In those early days losses to ground and surface waters, as well as to the atmosphere, were very high. As a result of cultivation over the years, these natural supplies have been gradually and greatly diminished, and with this diminution in natural nutrients came a corresponding and accelerated use of fertilizers. By 1969, the annual application of almost 7 million tons of nitrogen fertilizer was insufficient to replace the yearly drop in the soils capacity to supply this vital element in plant growth. Today, still greater amounts of all kinds of fertilizers are being applied.

This large-scale use of commercial fertilizer with high nitrogen and phosphorous content comes at a time of increasing public concern about eutrophication of lakes and streams and the presence of nutrients in ground water.

As the committee bill recognizes, much remains to be learned about eutrophication. In the meantime, control of nitrogen and phosphorous in surface waters is receiving wide attention as a means of limiting growth of algae and aquatic plants. It is known that nitrogen and phosphorous are essential nutrients for the growth of algae and aquatic plants, and that they do not usually occur naturally in concentrations which affect water quality. In addition, it is well established that nitrogen, when converted to nitrates, readily leaches to ground water, an important fact, because concentration of nitrate in excess of 45 mg/l. in drinking water is considered hazardous. Other elements such as potassium, calcium and magnesium are also necessary for such growth but are usually present in nature in abundant supply and present no great difficulty without the additional presence of nitrates and phosphorous.

Phosphorous in fertilizer is immediately tied up by clay particles in the soil upon application, so its primary route to becoming a problem is through soil erosion by flowing water. Thus, with proper fertilizer application and good land management phosphorous cannot be considered a significant problem in the use of fertilizers.

The best solution to problems arising from use of commercial fertilizers is sound management of their use; and in this regard it should be remembered that cost-benefit relationships will always work to minimize the application of any agricultural chemicals. Fertilizer should be applied to crops only in necessary minimum effective amounts and at times when crops can utilize it. Good land management, through use of conservation practices to prevent soil erosion and reduce surface [*102] runoff from cultivated or fertilized areas, is the most practical approach to minimizing fertilizer problems.

CONCLUSION

It is my belief that the bill establishes an effective framework to provide for the application of the expertise developed by U.S.D.A. and others in a program which will remedy the adverse impact of agricultural activities on water pollution. It will do this by placing primary responsibility in the States, while still providing integrated programs to achieve water pollution control from all sources. Only in this manner will the quality of the Nation's water resources be insured and maintained.

SUPPLEMENTAL VIEWS OF SEN. JAMES L. BUCKLEY

The Federal Water Pollution Control Act Amendments of 1971 is landmark legislation in our national effort to achieve a quality environment. Moreover, it seems destined to be controversial because it may attempt to achieve too much on the basis of too little information; because it will increase the federal financial contribution to waste treatment plants to so high a percentage that the net effect may be a lower total national investment in such plants while placing an unnecessary new strain on an increasingly inflated federal budget; because despite the pious references to the primacy of the state role in water quality efforts, it may well threaten in too many instances to reduce the role of the states and local governments to that of "errand boy", so that the bill may, in fact, encourage states to withdraw from the national effort.

Lest my remarks be interpreted in too negative a vein, I want to make it clear that my complaint is that this constructive bill might have been better; that some of the ideal objectives to which it has given legislative shape might give rise to such unattainable expectations on the one hand, and to such unwarranted concerns on the other, that in the longer run, the bill may set back the cause of water quality and unnecessarily discredit the environmental movement. And finally, I am concerned that the concentration of scarce resources in attempting to achieve a perhaps impossible degree of performance in just one area of environmental concern may divert or postpone public and private investment in other areas where far more tangible, far more essential near-term results could be achieved.

In these remarks I will address myself to three principal areas. The first has to do with the naming of a specific target date (1985) for the achievement of the national goal of no-discharge; the second has to do with the size of the federal contribution; and the third with the responsibility relegated to the states:

ALLOCATION OF RESOURCES

Although it is technically true that no single provision in the bill specifically mandates the application of a

"no-discharge" standard by 1985 or by any other date, it appears clear to me the bill will operate in such a way as to make it increasingly difficult for the Administrator or any State official charged with regulatory responsibilities under the Act to impose a standard less stringent than "no-discharge", particularly with respect to the "phase" ending on January 1, 1981 (section 301(b) (2) (A) <FWPCA § 301>).

I have no quarrel with the "no-discharge" standard as a statement of the ideal towards which we should focus our efforts. On the contrary, I would welcome as eagerly as any other American the quality of water that would result from the elimination of the discharge of all pollutants, intelligently defined.

However, we cannot lose sight of the fact that there is, somewhere, an outside limit to what the public -- as taxpayers and consumers -- will be willing to invest over any given period in the improvement of the environment. The commitment of resources to one sphere of activity means that those resources are no longer available for other competing needs where a given investment can, on balance, do more to move us towards achievement of all of our environmental goals.

I have little, if any, idea of the investment -- in terms of the total resources available to us -- that will be required to achieve the goals set forth in this legislation. But I do suspect that no one else does either; and the attempt to reach an incremental degree of perfection beyond that required for a steady, dramatic improvement in water quality may dry up funds which could far better be utilized to achieve significant breakthroughs in other areas affecting the environment.

The bill is by no means devoid of provisions that address themselves to the kind of potential misallocation of resources that I have suggested. With the justifiable exception of the provisions of section 307, which would impose controls on toxic pollutants in harmful amounts, the imposition of any effluent standard (including "no-discharge") pursuant to the Act would be subject to some sort of economic test. The Committee devoted considerable time to the search for a way to balance the costs of control against the benefits achieved. Sections 302(b) <FWPCA § 302> and 305(b) (1) (D) <FWPCA § 305> are examples of the Committee's efforts to strike a balance. But these provisions themselves vest an awesome responsibility in the Administrator. Tens of thousands of individual effluent standards will be imposed pursuant to this Act, each of which will have to be tailor-made. Compliance with each of these standards will require the investment of nonproductive capital resources, whether the source of discharge be publicly or privately owned. In each instance, the Administrator or his designee will be called upon to make often complex economic determinations of the kind that are traditionally resolved in response to the imperatives of a system of markets and prices. National water quality standards must in fact be met, if we are to achieve our necessary goals. But to expect what may prove to be an inordinately theoretical standard of omniscience on the part of the Administrator, given our near-term technological capabilities, may unnecessarily restrict his ability to apply the rule of Common Sense in the achievement of effective progress.

The bill adopts the rather curious approach of establishing the "no-discharge" standard by 1985 as "national policy" (section 101(a) (1) <FWPCA § 101>) and then providing procedures whereby the Congress will be given the opportunity, somewhere in the mid-1970's, to decide whether such a policy is achievable or, in fact, desirable (section 305 <FWPCA § 305>). I wholeheartedly support the idea that the Congress should continually review the progress of the program and make judgments as to its future course. But I confess to a concern that the opportunity to make the "mid-course correction" envisioned by section 305 may come too late to achieve its intended purpose, i.e., Congressional reevaluation of the 1985 "no-discharge" policy.

For example, section 301(b) (2) (A) <FWPCA § 301> would require the application of the "no-discharge" standard by 1981 to existing sources unless the owner of the source is able to persuade the Administrator that "no-discharge" is not "reasonable". It seems likely to me that, in light of the lead time required, dischargers will need to know not later than 1976 what will be expected of them by the 1981 deadline. And yet, it is in 1976 or 1977 that the Congress will be making its section 305 <FWPCA § 305> review of the "no-discharge policy". I anticipate confusion.

The wisdom to propose an answer to this dilemma is not at my command. While I acknowledge that the bill does

not enforce a "no-discharge" standard by 1985, I continue to believe that the bill would be improved by deletion of the date itself. It holds out a promise to the American people that is, I fear, however desirable, unrealistic. And barring some welcome breakthrough in control technology, should the 1985 "goal" operate as an enforceable standard, I reluctantly conclude that the cost of implementing it -- in terms of the total resources available to us -- is likely to prove unacceptable, if not prohibitive. But worst of all, it may (a) breed an antienvironmentalist backlash which will set us back years in our struggle to save the environment, and (b) divert the large sums required to achieve, in the end, breakthroughs in such other urgent matters as developing pollution-free means of generating electricity.

FEDERAL SHARE

In the matter of the size of the federal contribution to the construction of waste treatment facilities, I cannot agree with the majority's view that it should be increased from a maximum of 55%, as provided in the current program, to a maximum of 70%. I am not at all persuaded that an accelerated investment in waste treatment works will be stimulated by increasing the federal share. Such an increase may, in fact, reduce the number of plants on which construction could begin during the next five years. Under present legislation, enacted in 1966, the size of the federal share is increased from 30% to 55% of the cost of an approved water treatment facility if the state undertakes to contribute 25% and if certain other requirements are met.

Although, as of September 1, 1971, thirteen states had still declined to qualify for additional federal contributions under the existing law, testimony before the Committee made it amply clear that the "heel dragging" had little, if anything, to do with the percentage of the federal share. The one major complaint was that the Federal contributions promised in early legislation were not sufficiently dependable. There is little reason to believe, therefore, that raising the federal ante will be very significantly more effective in causing the remaining states to make the grants contemplated in the proposed bill. Furthermore, those 38 states (including the District of Columbia) which already [*105] agree to pay 25% of the costs account for 90% of the total estimated[*] construction needs for fiscal years 1972, 1973 and 1974. Hence, in the overwhelming number of projects which might be built, the act of increasing the federal share will merely substitute federal dollars for state dollars. Since this bill encourages the states to contribute only 10% of the cost of construction to qualify for a 70% federal grant, there is little reason to expect these 38 states to maintain the 25% to 30% contribution which they presently make.

These estimates, "need assessments," were made by the Environmental Protection Agency as of December 1970, and were based on the standards in effect in the states at that time.

Furthermore, the increase in the federal share may well be to make it politically impossible for a State or community to move faster than the federal contribution will allow.

Given, for example, that the total amount of federal funds available in a single fiscal year is \$2 billion, a 55% federal share would generate \$3.63 billion worth of construction, whereas a 70% federal share would generate \$2.86 billion worth, a difference of about \$370 million in total construction which would be initiated in that year. By way of comparison, \$370 million is the equivalent of the total estimated construction needs for as many, as 26 states for fiscal year 1972; or, to be fair, as few as one state (e.g., Illinois) which has particularly burdensome water pollution abatement requirements.

There is ample testimony that delays in the construction or modernization of sewage treatment facilities under existing legislation are not so much attributable (if at all) to the size of the basic federal contribution as to other factors such as a community's own conception of its priorities, an unwillingness to go to the voters for an authorization of new debt issues, or, in some instances, a technical impediment imposed by statute (e.g., debt or interest ceilings) and, perhaps most importantly, the unavailability of federal funds. There are also, of course, those communities which simply do not have the credit rating required to enable them to borrow the necessary funds at a reasonable price. To some degree, the Administration's proposed Environmental Financing Authority will alleviate this difficulty. However, I cannot agree that the most efficacious and fiscally prudent means of dealing with these relatively limited number of situations is to increase the federal share and thereby restrict the number of plants on which construction could be

initiated in a given fiscal year.

An additional observation one might make in this regard is that a periodic upping of the federal ante will have the counter-productive effect of inducing some communities to delay the planning and construction of modern sewage treatment facilities in the expectation of a better deal in a later year. If 70% this year is good, 90% in a few more years is better. And this expectation would not seem unreasonable, given legislation which has in fact been introduced.

I readily acknowledge the need for a strong, residual federal presence behind environmental quality programs. The problems of the environment, as a rule, respect no political boundaries, and are, therefore national. Where state and local governments, for whatever reason, are unwilling to act or unable to act, the federal government has a necessary obligation to intervene. But this bill, in my judgment, pre-supposes and anticipates inadequate state action.

[*106] My concern is not theoretical or doctrinaire. The active participation by state and local governments in this program, and a mood of cooperation and interdependence between those units of government and EPA, are essential to the success of the program. The federal government cannot possibly, as I see it, administer this program without the active cooperation of the states. And I question whether competent state officials will approach their responsibilities with dedication and enthusiasm, if their every act is subject either to prior approval or subsequent review by the Administrator.

STATE ROLE

From the outset of the Committee's deliberations, I have been, and remain, concerned that the detailed requirements of this Act will work to erode the initiative and flexibility of the States in exercising "their primary responsibility and rights . . . to prevent and eliminate water pollution." Notwithstanding that it is the policy of the Congress to recognize, preserve, and protect that responsibility (section 101(b)) <FWPCA § 101>, the overall effect of this bill is to mandate to the federal Administrator what I believe to be excessively broad and detailed responsibility over the most minute aspects of the State's programs. Section 106 <FWPCA § 106>, for example, which grants federal funds and imposes conditions upon the States for the award of these funds, provides the Administrator with the authority (in subsection (j)) that, "notwithstanding the fact that a State is in compliance with the requirements of subsections (g) and (h) of this section to reduce, after notice and opportunity for hearing, the grant payable to such State in such fiscal year if he determines, based on criteria established in regulations promulgated by him, that the water pollution control program of such State is inadequate in whole or in part." Given the natural history of bureaucracies, such a provision could, at best, prove mischievous.

In addition to the direction that the Administrator must stipulate the elements which a state program must include, he is required to judge the acceptability of the system of charges which each and every applicant will impose upon all users of waste treatment services as a condition of receiving a grant; he must determine the capability of 50 States to qualify for delegation of authority for a waste discharge permit system; he must approve waste treatment management plans for each State and each regional agency created within each State; and he must, once he has disposed of all these duties, continue to be responsible, as the ultimate enforcer, for the maintenance of every last provision imposed upon him and upon the States by this Act, whether or not these minutiae actually affect the achievement of water quality standards.

In closing, I would like to say something rather personal. I am the only member of the Committee on Public Works who has not had previous legislative experience. I have had rather definite points of view on a number of provisions which at one time or another have appeared in the drafts of the legislation which is now before the Senate. But I know of no situation in private life where a newcomer would have been accorded greater consideration, or where differences of opinion would have been given a fairer hearing than that which [*107] was characteristic of both the Committee on Public Works and its Subcommittee on Air and Water Pollution. I feel particularly fortunate to be a member of both and to have been able to work with the two chairmen and the committee staff, who have made so great an effort to accommodate differences of approach to common objectives.

JAMES L. BUCKLEY.

[*109] CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In the opinion of the Committee, it is necessary to dispense with the requirements of subsection (4) of rule XXIX of the Standing Rules of the Senate in order to expedite the business of the Senate. Therefore, this report does not contain a line-type and italic comparison of the bill with existing law.

This bill re-enacts the Federal Water Pollution Control Act in its entirety, with amendments. The discussion of intent indicates the effect of the amendments on existing law. Section 8 of the Federal Water Pollution Control Act, dealing with construction grants for waste treatment works, is replaced by Title II of this bill. Section 10 of existing law, containing standard-setting and enforcement language, is replaced by Title III, Title IV, and sections 504 <FWPCA § 504> and 505 <FWPCA § 505> of this bill. The material of section 11 (oil pollution) and section 12 (hazardous polluting substances) of existing law are combined in section 311 <FWPCA § 311> of this bill, while section 13 (sewage from vessels) is now section 312 <FWPCA § 312>.

Research, training, and special demonstration programs from existing law are collected in Title I of this bill, with the statement of policy and State program grants (formerly section 7, now section 106 <FWPCA § 106>). Title V of the bill contains definitions and general administrative provisions from the existing law, together with new matter.

[*111] APPENDIX A

The following water pollution control bills, introduced during the first session of the 92nd Congress, were considered by the Subcommittee on Air and Water Pollution in its 1971 series of public hearings:

[**75] S. 75 (SENATOR NELSON) -- DETERGENT POLLUTION CONTROL ACT

The Administrator of the Environmental Protection Agency shall issue standards of water eutrophication, biodegradability, toxicity, and of effects on the public health and welfare which must be met by all synthetic detergents. It shall be unlawful after June 30, 1973, for any person to import or manufacture any detergent not in compliance with these standards. Federal assistance is provided to accelerate the development and manufacture of detergents that are pollution free.

[**192] S. 192 (SENATOR NELSON) -- MARINE POLLUTION CONTROL ACT

After June 30, 1975, no citizen of the United States shall dispose of refuse materials originating within the U.S. into the Great Lakes, the coastal waters of the United States or the high seas without a permit from the Administrator of the EPA with concurrence of the Council on Environmental Quality.

[**280] S. 280 (SENATOR NELSON) -- NATIONAL LAKES PRESERVATION ACT

Establishes a National Lake Areas System to preserve, protect, and make accessible the lake areas of the Nation (to be composed of both federally administered lake areas and lake areas administered by the States). The Secretary of the Interior shall conduct a nationwide study of lake areas considering resource, economic, recreational, agricultural, and industrial values to establish the most appropriate means of preserving and protecting such areas. The Secretary is authorized to issue regulations governing the public use of Federal lake areas. The Secretary shall support, assist, and encourage programs, including grants and contracts, of lake and lake area research, investigation, and experiments.

[**281] S. 281 (SENATOR NELSON) -- A BILL TO AMEND THE FEDERAL WATER POLLUTION CONTROL ACT

Protects the navigable waters of the United States from further pollution by requiring that pesticides manufactured for use in the United States or imported for use in the United States comply with certain standards of biodegradability and toxicity. It shall be unlawful after June 30, 1973, for any person to import or manufacture pesticides which do not

comply with these standards.

[**523] [*112] S. 523 (SENATOR MUSKIE) -- NATIONAL WATER QUALITY STANDARDS ACT

Authorizes a five year national program of \$25 billion for the construction of waste treatment plants to improve and achieve more efficient waste treatment. The Administrator of the EPA shall issue standards to protect and enhance the existing quality of all waters. These standards shall apply to all navigable waters and their tributaries and must be adopted with a statutory deadline and attained within three years of approval. Ocean discharges would be regulated through permits granted by the Administrator. Negligent violation of a water quality standard, requirement of an implementation plan, or an order of the Administrator would be liable to a civil penalty of \$10,000 per day. A knowing violation would be subject to criminal penalty of \$25,000 per day or imprisonment for up to one year. The Administrator may enter and inspect effluent sources. Any person may sue a polluter to abate a violation of water quality standards. Discharge of hazardous substances would be prohibited.

[**601] S. 601 (SENATOR SAXBE) -- TO AMEND THE WATER POLLUTION CONTROL ACT

Provides assistance for river basin programs, not to exceed 50% of administrative, investigatory, operator training, and water quality control inspection costs of carrying out a basin water quality management plan.

[**679] S. 679 (SENATOR STEVENS) -- TO AMEND THE REFUSE ACT OF 1899

Increases penalties relating to wrongful deposit of certain refuse, injury to harbor improvements, and obstruction of navigable waters from \$2,500 to \$100,000, and repeated infractions would be treated as separate violations each day they continue.

[**1011] S. 1011 (SENATOR WILLIAMS) -- NATIONAL MARINE WATERS POLLUTION CONTROL ACT

Provides means and measures to control the discharge of wastes transported by any means from areas within the U.S. and to protect and enhance the quality of the marine environment. Prohibits the discharge or the contribution to discharge of wastes from any vessel, except sewage discharged from marine sanitation devices. There shall be a civil penalty of not more than \$100,000 per violation. Within 180 days after enactment, the Administrator of the EPA shall issue proposed regulations governing the discharge of wastes by any owner or operator of a vessel or onshore or offshore facility into or upon all or any portion or portions of the waters beyond the contiguous zone. The Administrator shall make grants to any State, municipality, or other political subdivision for the construction of treatment works annually.

[**1012] S. 1012 (SENATOR COOPER) -- A BILL TO AMEND THE FEDERAL WATER POLLUTION CONTROL ACT

Amends Sections 5, 6, and 7 providing increased authorizations for appropriations to assist the State and interstate water pollution con- [*113] trol programs. Provides additional flexibility to the Administrator of the EPA in awarding such grants through increased use of incentives. Provides additional research and development authority. Provides for development of new technology in the area of advanced waste treatment, combined sewers, and industrial waste treatment.

[**1013] S. 1013 (SENATOR COOPER) -- A BILL TO AMEND THE FEDERAL WATER POLLUTION CONTROL ACT

Amend Section 8 providing a new program of financial assistance to States and municipalities for the construction of treatment works. Includes a new provision to assure the development of financial and operation and maintenance capability in the States and municipalities in construction and maintenance of waste treatment works. Authorizes \$6 billion in Federal funds: \$2 billion for each of the next 3 fiscal years, to be matched by contributions up to 55 percent in

State and local funds for the construction of a total of \$12 billion of waste treatment works throughout the Nation. Revises the allocation formula to provide greater flexibility to meet the most critical water pollution problems, and provides a new formula for reimbursement of prefunded Federal shares.

[**1014] S. 1014 (SENATOR COOPER) -- A BILL TO AMEND THE FEDERAL WATER POLLUTION CONTROL ACT

Amends Section 10 providing for a strengthened program to establish, implement, and enforce water quality standards. Extends the Federal-State program for the establishment and approval of standards and plans applicable to all navigable and ground waters. Establishes effluent standards as the primary pollution abatement mechanism in implementation plans to achieve water quality standards. Modifies enforcement provisions to include immediate Federal abatement, information acquisition, and emergency authority.

[**1015] S. 1015 (SENATOR COOPER) -- ENVIRONMENTAL FINANCING ACT

Creates the Environmental Financing Authority under the supervision of the Secretary of the Treasury. Insures that inability to borrow necessary funds on reasonable terms does not prevent any State or local public body from carrying out any project for construction waste treatment works. EFA would be authorized to buy the State and local bonds at rates to be determined by the Secretary of the Treasury. EFA would be authorized to issue taxable obligations on the market.

[**1017] S. 1017 (SENATOR MONDALE) -- CLEAN LAKES ACT

Authorizes the Administrator of the EPA to increase the Federal grant percentage for the treatment works to a maximum of 65 percent of the costs for treatment works which are located near or adjacent to any lake and which discharges wastes into the lake or tributary waters, if the States pay at least 20 percent of the costs. Authorizes the Administrator to provide technical and financial assistance to the States and municipalities in carrying out a comprehensive program of pollution control.

[**1082] [*114] S. 1082 (SENATOR CASE) -- A BILL TO AMEND THE FEDERAL WATER POLLUTION CONTROL ACT

Regulates the discharge of wastes in territorial and international waters until five years after the date of enactment, prohibits such discharge thereafter, authorizes research and demonstration projects to determine means of using and disposing such wastes. After a five-year period, dumping is prohibited anywhere in ocean waters or Great Lakes.

[**1143] S. 1143 (SENATOR EAGLETON) -- A BILL TO AMEND THE FEDERAL WATER POLLUTION CONTROL ACT

Provides a national commitment for financing of expanded programs under the Federal Water Pollution Control Act to assure better coordination in development of clean water programs. Authorizes grants to States and interstate agencies to assist them in meeting costs of establishing and maintaining adequate measures for prevention and control of water pollution, including training of personnel of public agencies.

[**1238] S. 1238 (SENATOR BOGGS) -- MARINE PROTECTION ACT OF 1971

Regulates the dumping of material in oceans, coastal, and other waters. EPA Administrator is authorized to issue permits for dumping of materials or for transporting of such materials to areas where dumping in his judgment will not unreasonably degrade or endanger human health, welfare or amenities, or the marine environment, ecological systems, or economic potentialities. Administrator is required to establish criteria for evaluating permit applications. Attorney General is authorized to bring action for equitable relief of violations. Surveillance and enforcement authority is given to the Coast Guard.

[**1259] S. 1259 (SENATOR MAGNUSON) -- A BILL TO AMEND THE FEDERAL WATER POLLUTION CONTROL ACT

Amends Section 8 of the Federal Water Pollution Control Act to authorize a special 20 per cent incentive grant for new construction of pollution abatement works by any municipality which has built sewage projects since 1956 that qualified for Federal assistance at the time of building but did not receive the 30% Federal grant then authorized. Authorizes not to exceed \$10-billion to finance the programs and activities under this section.

[**1286] S. 1286 (SENATOR BOGGS) -- EMERGENCY WATER POLLUTION PREVENTION ACT OF 1971

Amends the Federal Water Pollution Control Act by inserting a new section on Control of Ocean Pollution. EPA Administrator is authorized to develop and promulgate regulations on the future control of ocean dumping by using a permit system no later than six months after the effective date of enactment. Permits are to allow ocean disposal only where it will not produce a harmful effect on the [*115] environment and only in areas designated by the Administrator outside the territorial waters and beyond the Continental Shelf. Until the permit system is established, the bill would prohibit any ocean discharge.

[**1781] S. 1781 (SENATOR NELSON) -- CLEAN WATER FINANCING ACT OF 1971

Effective for fiscal years beginning after July 1, 1971, section 8 of the Federal Water Pollution Control Act is amended to provide 90 per cent Federal aid for the construction or upgrading of municipal waste treatment plants.

Authorizes the EPA Administrator to incur obligations in the form of grant agreements or otherwise in amounts not to exceed \$25-billion during the next five years, with Congress liquidating the obligations at the rate of \$5-billion a year.

[*116] APPENDIX B

The following water pollution control bills, introduced during the second session of the 91st Congress, were considered by the Subcommittee on Air and Water Pollution in its 1970 series of public hearings:

[**3181] S. 3181 (SENATOR PROXMIRE) -- REGIONAL WATER QUALITY ACT OF 1970

Secretaries of Interior and Treasury to establish by June, 1971, a schedule of national effluent charges for all substances other than domestic sewage which detract from water quality. Charges shall be determined on basis of waste discharged and relationship to resulting damage of waterway. Revenues collected by Secretary of Treasury shall be deposited in a trust fund. This fund to be distributed as follows: 50 percent to municipalities for construction of waste treatment facilities; 50 percent to regional water management associations for same purpose. Violators subject to fines of \$1,000 to \$5,000 per day of violation.

[**3468] S. 3468 (SENATOR SCOTT) -- ENVIRONMENTAL FINANCING ACT OF 1970

Establishes the Environmental Financing Authority, subject to supervision of Secretary of Treasury. Authorizes up to \$100 million for initial capital. Purpose to assure all communities can get financing at reasonable rates for local share of waste treatment plant construction. EFA would be authorized, where Secretary of Interior certifies a community cannot get financing, to buy the State and local bonds at rates to be determined by Secretary of Treasury. EFA would be authorized to issue taxable obligations on the market.

[**3470] S. 3470 (SENATOR SCOTT) -- A BILL TO AMEND THE FEDERAL WATER POLLUTION CONTROL ACT

Amends language relating to grants for research and demonstration on water pollution control projects. Authorizes \$125 million per fiscal year for fiscal years 1970, 1971, and 1972 for contracts and grants to research sewage treatment

methods, effects of pollution on water uses, etc. For State and interstate programs, provides graduated authorizations starting with \$12.5 million in fiscal year 1971 and increasing to \$30 million for fiscal year 1975. Of this, \$10 million a year (equal to the current authorization) is to be available for the basic program of assisting State and interstate groups to administer their water pollution control programs. The additional funds may be used for grants to States agreeing to develop an improved water pollution control program meeting certain criteria. (This amount can be up to 25 percent of basic Federal grant under existing sections). Secretary also can make special project grants to State or interstate agencies for projects exception in scope of problems they cover.

[**3471] [*117] S. 3471 (SENATOR SCOTT) -- A BILL TO AMEND THE FEDERAL WATER POLLUTION CONTROL ACT

Changes the declaration of policy in Section 1(a) from the current "to enhance the quality and value of our water resources" to "enhance the quality of our environment." Sets forth enlarged Federal role in water pollution abatement. Expands standards requirement to navigable, boundary and ground waters and waters of the contiguous zone. Eliminates need for governor's request for federal enforcement of standards in intrastate cases. Adds effluent standards as part of water quality standards program. Specifies fines of up to \$10,000 a day. In case of violation, Secretary must notify polluter 180 days before initiating abatement procedures. Not less than 21 days after this notice, there shall be a public hearing. If there has not been remedial action within 180-day period, Secretary may request Attorney General to bring suit.

[**3472] S. 3472 (SENATOR SCOTT) -- CLEAN WATER FINANCING ACT OF 1970

Secretary of Interior authorized to incur obligations of \$4 billion for grants for waste treatment facilities. Of this, \$1 billion would be available during each of 4 fiscal years beginning fiscal year 1971. Secretary to submit report by January, 1973, outlining addition needs for fiscal years 1975 through 1979.30 and 50 percent share formula remains the same. Formula for Federal share of 40 percent changed. State would have to guarantee 25 percent of cost, rather than present 30 percent. Eliminates bonus for conformity with water quality standards, substitutes requirement all grants must comply with regulations prescribed by Secretary. Revises allocation formula to provide 60 percent of funds to be allocated under present criteria of population and financial need, 20 percent to be allocated on basis of State agreements to pay at least 25 percent of cost, and 20 percent on basis of Secretarial determination of severity of water pollution problems and ability to conform to basin-wide abatement program. Eliminates 10 percent bonus for compliance with a metropolitan plan, making such compliance a requirement for all grants.

[**3484] S. 3484 (SENATOR NELSON) -- MARINE ENVIRONMENT AND POLLUTION CONTROL ACT OF 1970

Prohibits all dumping of refuse originating in U.S. into oceans, Great Lakes, or coastal waters after June 30, 1975, except on a temporary permit from the Secretary of the Interior on a finding that there is no other feasible means of disposing of such refuse. In the interim, such dumping would be permitted only with a permit issued by the Secretary. Before issuing permit, Secretary must hold public hearings and solicit views of State officials, other Federal departments. His decision can be vetoed by the Council on Environmental Quality.

Sets up in Department of Interior an Advisory Committee on the Marine Environment, and also charges Secretary with establishing an Inter-Agency Committee on Marine Resources Management, with representatives from other departments. As of three years from effective date of amendments, no submerged lands under jurisdiction of [*118] Secretary shall be leased for oil or other minerals without a management plan in effect for that area. Whenever such a lease is proposed, or when the Secretary thinks its desirable, he shall in consultation with above groups, study the area and develop a management plan. The management plan shall afford protection for plant and animal life, ecological and other systems and recreational values of the area. This plan shall allow a given use only upon the Secretary's finding that it does not risk environmental damage.

[**3488] S. 3488 (SENATOR WILLIAMS) -- NATIONAL MARINE WATERS POLLUTION CONTROL AND QUALITY ENHANCEMENT ACT OF 1971

Amends Section 17 of the Federal Water Pollution Control Act to prohibit discharge of wastes into the waters of the contiguous zone, except under regulations promulgated by the Secretary of the Interior. Provides for issuance of regulations by the Secretary governing the discharge of wastes and for the designation of areas where such controlled discharges are permitted.

[**3500] S. 3500 (SENATOR NELSON) -- A BILL TO AMEND THE FEDERAL WATER POLLUTION CONTROL ACT

[**3507] S. 3507 (SENATOR NELSON) -- DETERGENT POLLUTION CONTROL ACT OF 1970

These bills are similar; one more comprehensive than the other. S. 3500 makes it unlawful after June 30, 1972, to import or manufacture detergents containing phosphorus on basis that these detergents contribute to water pollution. Detergent in violation may be seized and destroyed or sold, with proceeds to U.S. Treasury, provided that such detergents are not to be used for purpose contributing to pollution. S. 3507 contains identical provisions banning phosphorus in detergents. In addition, it stipulates that the Secretary of Interior shall establish by June 30, 1971, standards for detergents relative to eutrophication, biodegradability, toxicity and effects on the public health and welfare. Any detergent not in compliance after June 30, 1972, is liable to seizure and court action. Conviction of violation is punishable by a fine up to \$5,000.

[**3614] S. 3614 (SENATOR COOK) -- FEDERAL PROCUREMENT AND ENVIRONMENT ENHANCEMENT ACT OF 1970

Any person or corporation under court order to abate pollution or found to be in violation of water pollution laws or regulations is made ineligible to enter into a contract for procurement of goods or services with the Federal Government. All Federal agencies, before entering into contracts, must require proof of compliance with water pollution control laws on part of person or corporation entering into the contract. Also contains similar provisions relative to air pollution law.

[**3687] S. 3687 (SENATOR MUSKIE) -- NATIONAL WATER QUALITY STANDARDS ACT OF 1970

Increases Federal grant authorization for waste treatment facilities to \$2.5 billion a year for 5 fiscal years (1972-1976). This would pay [*119] Federal share of \$25 billion worth of construction. Continues present system of 30, 40 and 50 percent grants based on State aid level and compliance with water quality standards. As incentive to river basin planning, authorizes grants of up to 60 percent in basins designated by the Secretary of Interior where waste treatment works are part of basinwide plan which plan meets certain statutory requirements. Doubles level of Federal assistance to State and interstate program to \$20 million a year beginning in fiscal year 1972. Adds requirement Federal assistance to be used to aid in implementation and enforcement of water quality standards. Extends standards program to all navigable waters (instead of interstate waters as at present). Requires that all standards include effluent requirements and compliance schedules. Provides for public hearings on setting standards. Prohibits discharge in violation of standards. Authority for Secretary of Interior to issue orders, requiring abatement and prescribing time for compliance. Appeal procedure. Failure to comply or appeal, subject to court action. Knowing violation of standards or refusing to comply with order subject to penalties of one year in prison, \$25,000 per day of violation, or both. Prohibits Federal loans, grants, contracts or permits to firms not complying with water quality standards. Protects workers who give information in proceedings under the Act. Authorizes Secretary to bring immediate court action in event of substantial endangerment to persons or wildlife.

[**3688] S. 3688 (SENATOR MUSKIE) -- CLEAN WATER COMMITMENT ACT OF 1970 (INTRODUCED AT REQUEST OF NATIONAL LEAGUE OF CITIES AND U.S. CONFERENCE OF MAYORS)

Increases authorization for Federal share of waste treatment construction to \$10 billion for 5 fiscal years at \$2 billion per year. Shifts emphasis of pollution control to river basin plan, requiring commission to be set up for each basin, with representative from each affected State. Each commission must adopt comprehensive pollution abatement plan. Federal government authorized to pay up to 50 percent of administrative expenses of such commissions. Authorizes \$25 million a year, beginning in fiscal year 1972, for grants to States and basin commissions for administrative and planning costs. No grant shall be approved unless project has been approved by basin commission and affected States. Limits Federal share of waste treatment projects to 50 percent as general rule. Exception is that this share can go up to 70 percent for communities that in past have paid 80 percent or more as local share of such projects.

[**3697] S. 3697 (SENATOR MONDALE) -- CLEAN LAKES ACT OF 1970

Would authorize the Secretary of the Interior to increase the Federal grant percentage for treatment works under Section 8(b) of the Federal Water Pollution Control Act to a maximum of 65 percent of the costs for treatment works which are located near or adjacent to any lake and which discharges wastes into the lake or tributary waters, if the States pay at least 20 percent of the costs. Authorizes an annual appropriation of \$150 million for fiscal years 1972, 1973, 1974, and 1975 for the purpose of funding these increased [*120] grants. Authorizes the Secretary to provide technical and financial assistance to the States and municipalities in carrying out a comprehensive program of pollution control. Authorizes up to 80 percent Federal grants for this program from a total appropriation of \$900 million over a 6-year period beginning in fiscal year 1972. Authorizes the use of experienced Federal water resources agencies such as the Bureau of Reclamation and the Corps of Engineers to help carry out this program under agreements with the States; and provides measures to enforce water quality standards for lakes subject to this